Colliers
Project Leaders

Rhode Island Department of Education Stage I Submission

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

February 15, 2023

PREPARED BY:
Colliers Project Leaders &
Bristol Warren Regional School District

PREPARED FOR:
Rhode Island School Building Authority
Office of Statewide Efficiencies
Rhode Island Department of Education

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BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW.BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Dr. Joseph da Silva, Ph.D., NCARB, REFP
School Construction Coordinator / Architectural Design Reviewer
Rhode Island Department of Education - School Building Authority
255 Westminster Street
Providence, RI 02903

Dear Dr. da Silva:

Please be advised that the Bristol Warren Regional School District, in conjunction with Towns of Bristol & Warren, intend on submitting a Necessity of Construction Application during the 2023 Cycle:

Stage I Submission	**No later than February 15, 2023**
Stage II Submission	**No later than September 15, 2023**

This letter serves as the statement of interest for the Bristol Warren Regional School District Stage I Submission dated February 15th 2023.

Teaching and learning are at the core of a school departments work and remain our primary foci. We seek to continue to improve the physical learning environment of Bristol Warren Regional School District's schools so that our teachers, students, and community members may learn in safe, clean schools with efficient lighting, heating and cooling systems, appropriate technology access and spaces that will allow us to continue to meet academic and curriculum expectations as outlined in Rhode Island's Basic Education Plan.

With progress underway in the improvement of our school facilities, the Bristol Warren Regional School District is actively preparing for the next round of critical capital improvement projects and educational enhancements. This five year capital improvement plan will be the continuation of the work identified by Colliers Project Leaders and CIVIC Educational Planner. This Stage I submission will serve as a springboard for the School District to advance our investment in the students and faculty throughout Bristol and Warren.

While we are pleased with our accomplishments to date, there is still so much that remains to be done. With that in mind, we ask RIDE and the School Building Authority to support this application so that we may work with you to ensure that we are providing optimal 21st Century Learning in our schools.

We look forward to our continued work together.

Sincerely,

Ana C. Riley	Nichola Piper	Kate Michaud	Steven Contente
Superintendent	Chair	Town Manager	Town Administrator
Bristol Warren RSD	School Committee	Town of Warren	Town of Bristol

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

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Ana C. Riley
Superintendent of Schools

Executive Summary

School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, Rhode Island 02903

Dear Reader,

The Bristol Warren Regional School District (BWRSD), in conjunction with Cities of Bristol & Warren Leadership, is enthusiastic to submit to the Rhode Island Department of Education – School Building Authority (RIDE-SBA) their vision for the next phase of generational capital improvement projects to its educational facilities. BWRSD desires to comprehensively address all their capital improvement needs across the district's six school facilities. The facilities include Mt. Hope High School, Kickemuit Middle School, Colt Andrews Elementary School, Guiteras Elementary School, Hugh Cole Elementary School, & Rockwell Elementary School.

Enclosed you will find supporting backup based on the facilities condition assessment needs that the district intends to seek capital funding to support renovations that focus on health and safety and educational enhancements throughout the district, this work is planned to address needs at all our schools.

The proposed work is the result of the Bristol Warren Regional School Districts continued focus on addressing any building deficiencies, continuing a strong yearly maintenance program, and making strategic investments that provide exceptional educational enhancements to the most deficient school facilities.

Summary of work/Project Priorities:

Mt. Hope High School: The primary scope of work consists of targeted educational enhancements, major health and safety upgrades, and major building envelope work. As shown throughout this submission, Mt. Hope High School facilities are in need of significant improvements to create a 21st century learning environment for its students. This scope will continue to be reviewed and defined as we work towards our Stage II submission.

Kickemuit Middle School: The scope of work may include select renovations and repairs to the classrooms, common areas, mechanical electrical and life safety upgrades, accessibility upgrades, and building envelope work. This scope will continue to be reviewed and defined as we work towards our Stage II submission.

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Ana C. Riley
Superintendent of Schools

Colt Andrews Elementary School: The scope of work may include select renovations and repairs to the classrooms, common areas, mechanical electrical and life safety upgrades. Select areas of need will be renovated to reflect a 21st century learning environment. This scope will continue to be reviewed and defined as we work towards our Stage II submission.

Guiteras Elementary School: The scope of work may include select renovations and repairs to the classrooms, common areas, mechanical electrical and life safety upgrades, and accessibility upgrades. This scope will continue to be reviewed and defined as we work towards our Stage II submission.

Hugh Cole Elementary School: The scope of work may include select renovations and repairs to the classrooms, common areas, mechanical electrical, life safety upgrades, and accessibility upgrades. Select areas of need will be renovated to reflect a 21st century learning environment. This scope will continue to be reviewed and defined as we work towards our Stage II submission.

Rockwell Elementary School: The scope of work may include select renovations and repairs to the classrooms, common areas, mechanical electrical and life safety upgrades, accessibility upgrades, and building envelope work. This scope will continue to be reviewed and defined as we work towards our Stage II submission.

Project Schedule:

It is the intent of the Bristol Warren Regional School District to execute the projects over the next five years, with the majority of work being done during summers.

Sustainability Goals:

The Bristol Warren Regional School District will comply with the requirements of NECHPS and will seek to improve energy performance when possible.

Thank for your guidance and support as we plan for this investment in our schools, and most importantly, in our students.

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PROJECT SCHEDULE

Bristol Warren Regional School District

RIDE Stage I Submission - Preliminary Schedule

★ **Key Milestone**

TIMELINE DESCRIPTIONS	2022				2023												2024												2025												2026												2027											
Date: 2.15.2023	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Stage I Submission						★																																																								
Stage II Submission													★																																																
Stage III Submission																																																												
Schematic Design																																																												
Design Development																																																											
Construction Drawings																																																											
CM Selection																																																											
Pre-Construction																																																											
Design Reviews / Cost Estimation																																																											
Demolition (Early Package)																																																											
Site Stabilization (Early Package)																																																											
Construction																																																											
Move Management & FFE																																																											
Occupancy																																																											
Closeout																																																											

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Ana C. Riley
Superintendent of Schools

February 15, 2023

Mario Carreno, ALEP
Chief Operating Officer
School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, RI 02903

Statement on Educational Planning

Per RIDE-SBA Construction Regulations, the District shall procure an Educational Planner to develop the educational specifications that will inform the Design Program for the projects included within.

Educational planner Manuel Cordero Civic Design is currently working with the district to create an educational planning study included within this submission.

An educational planner will also be included in the Bristol Warren Regional School District's RFQ for Architectural Design & Engineering Services for RIDE Stage II, as a base scope of work for the RIDE-SBA Necessity of Construction Application, Stage II submission.

An example RFQ for these services is included on the following pages within this section.

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February 15, 2023

Mario Carreno, ALEP
Chief Operating Officer
School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, RI 02903

Statement on Procurement Practices

The Bristol Warren Regional School District shall comply with all federal, state and local laws and regulations applicable to the school department's procurement practices, including those related to minority hiring.

Additional References:

http://www.purchasing.ri.gov/rulesandregulations/rulesAndRegulations.aspx

www.mbe.ri.gov

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BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 High Street
Bristol, Rhode Island 02809

Public RFP# 5-3-25-22

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission

In order to retrieve the RFP bid, interested parties must complete the specific bid google form located on our website so that we can obtain your contact information so that all interested bidders will receive all bid documents, addendums and FAQ's that may be added during the active bid.

As stated above, This RFP must be obtained on the Bristol Warren Regional School District's website on the Business & Finance Department's Bid page located at the following link: https://www.bwrsd.org/Page/2880 to ensure proper registration to receive all documents.

General Bid Schedule

RFP Released		March 25, 2022
Bidder Questions and Clarifications Ends		April 8, 2022 4:00pm
Response to Questions/Issue Addendum		April 11, 2022
Bids Due Back		**April 15, 2022 3:00 pm**
Bid Opening		April 15, 2022 3:15 pm
Planned Date to Submit Stage I to RIDE	No later than	September 09, 2022

All responses to this RFP must be submitted including the bid form provided, **(3) three hard copies**, and One(1) digital copy on a USB Flash Drive, clearly marked:

Sealed Bid
5 Year Capital Improvement Plan

Bids must be enclosed in an opaque envelope addressed to Bristol Warren Regional School District Administrative Offices, Attn: Anthony Ferrucci, CFO, 235 High Street, Bristol, RI 02809 bearing the name and address of the bidder.

The Bristol Warren Regional School District reserves the right to reject any/all bids, waive any informalities in the bids received and to accept and award the bid to the lowest qualified bid deemed most favorable to the interest of the Bristol Warren Regional School District.

All questions should be submitted to the Administrative Office by email to thomas.wood@bwrsd.org no later than **April 8, 2022 at 4:00 p.m.**

Proposals misdirected to other locations or those not received at the BWRSD School Department Administration Building by the scheduled due date and time shall be determined to be late and shall not be accepted. Proposals faxed or emailed to the BWRSD School

Department shall not be accepted.

STANDARD INSTRUCTIONS TO BIDDERS
BRISTOL WARREN REGIONAL SCHOOL DISTRICT

The following instructions are standards for all proposals submitted:

1. Receipt and Opening of Proposal

Sealed proposals (bids) will be accepted in the BWRSD Administrative Offices, Attn: Anthony Ferrucci, CFO, 235 High Street, Bristol, RI 02809 until the time indicated on the advertisement for Bids, for the commodities, equipment, and/or services designated in the specifications and will then be opened in person and read.

2. Form of Bid

Proposal must be submitted on and in accordance with the forms attached hereto, blank places must be filled in as noted, no change shall be made in the phraseology of the proposal or in the item or items mentioned therein, must contain the name and proper address of the bidding firm, and must be signed by a responsible member of the firm with his/her signature and official title. Proposals that are not complete, or contain any omissions, erasures, alterations, additions and/or contain irregularities of any kind, may be rejected.

3. Submission of Bids

a. The Bristol Warren Regional School District (henceforth "The District") will decide when the specified time has arrived to open bids, and no bid received thereafter will be considered.

b. Any bidder may withdraw his/her bid by written request at any time prior to the advertised time for opening. Telephonic bids, amendments, or withdrawals will not be accepted.

c. Unless otherwise specified, no bid may be withdrawn for a period of ninety (90) days from the date of bid opening.

d. Negligence on the part of the bidder in preparing the bid confers no rights for the withdrawal of the bid after it has been opened.

e. Proposals received prior to the time of opening will be securely kept unopened. No responsibility will attach to an officer or person for the premature opening of a proposal not properly addressed and identified.

4. Prices

Bidders shall state the proposed price in the manner as designated in the Bid Proposal Form. In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall govern. In the event there is a discrepancy between the price written in words and written in figures, the prices written in words shall govern.

5. Rhode Island Sales Tax

The District is exempt from the payment of R.I. Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30 (1), as amended.

6. Federal Excise Taxes

The District is exempt from the payment of any excise or federal transportation taxes. The price bid must be exclusive of taxes and will be so construed.

7. Equal Employment Opportunity Policy Statement

For the purposes of this Policy, the term “vendor” shall mean any and all individuals, companies, corporations, and business entities that provide goods or services to the District pursuant to any and all relevant and appropriate Federal, State, and local purchasing rules, regulations, and procedures.

The District is committed to the general policy and principle of Equal Employment Opportunity in terms of retaining vendors to provide the District with goods and services necessary for routine and emergency operations. The District shall not discriminate against vendors as entities, or individual employees thereof on any legally recognized basis included, but not limited to, race, age, color, religion, gender, gender identification, marital status, national origin, physical or mental disability, Veteran’s status, pregnancy, sexual orientation, genetic conditions, predisposition to certain diseases, or ancestry, except where a bona fide occupational qualification exists.

The vendor shall complete the Business Enterprise Utilization Plan Form-
Appendix B

8. Schools Right to Reject

The District reserves the right to reject any and all proposals, to waive any informality in the proposals received and to accept the proposal deemed to be most favorable to the best interests of the District.

9. Labor Regulations

a. The Contract for Work under this proposal will obligate the contractor and subcontractors not to discriminate in employment practices and conform with the Affirmative Action Plan pursuant to Executive Order No. 11246.

b. Bidders must, if required, submit a compliance report concerning their employment practices and policies in order to maintain their eligibility to receive the award of the Contract.

c. Successful bidders must, if required, submit a list of all subcontractors who will perform Work on the Project, and written signed statements from authorized agents of labor pools with which they will or may deal with for employees on the Work, together with any information to the effect that such labor pools practices or policies are in conformity with Executive Order No. 11246

10. Payment

Vendor shall submit monthly invoices for payment to the District. The Invoices shall include: Dates of service, scope of work and hours worked The District will promptly pay within two weeks of receiving Invoices. Payments will be made via check. W-9 required for processing.

11. Termination of Contract

Following implementation, should the Superintendent and/or Chief Financial Officer find that the firm has failed in any material respect to perform its agreed upon obligations

under the contract, the contract shall be canceled by the District as being in the best interest of the District. In the event of termination of this contract as a result of breach by the contractor, the District shall not be liable for any fees and may, as its sole option, award a contract for the same services to another qualified firm or call for new proposals. The contractor shall be responsible for consequential damages as a result of its breach, including, but not limited to, extra costs required under the new contract for similar services.

12. Period of Performance

The period of performance for this contract shall be 12 months. Subject to extension only by mutual agreement.

13. Indemnification and Insurance

The vendor selected shall indemnify and save the District harmless from liability in any manner of claims, lawsuits and damages for any type of losses, including the loss of life, due to its work or operations on District property, in carrying out and completing the full scope of services under this agreement.

The vendor shall meet the insurance and indemnification requirements as prescribed in the Insurance Appendix A Insurance- Exhibit Professional Contracts.

14. Collusion

Any act or acts of misrepresentation of collusion shall be a basis for disqualification of any proposal or proposals submitted by such persons guilty of said misrepresentation or collusion. In the event that the District enters into a contract with any proposer who is guilty of misrepresentation or collusion and such conduct is discovered after the execution of said contract, the District may cancel said contract without incurring liability, penalty, or damages.

SPECIFICATIONS
Bristol Warren Regional School District

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission:

INTENT

The Bristol Warren Regional School District District (henceforth “the District") is seeking bids for the services of a professional architecture, engineering and educational facilities planning firm (the “Firm”) to complete a Facilities Conditions Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission (the “Plan”) as described in the scope of work.

The District will select a Firm through a qualifications-based selection process for the procurement of architectural and engineering consulting services. Responses will be evaluated on the basis of the relative merits of the proposal and firms will be ranked based on the criteria described in this RFP. The top firm will be selected and enter into fee negotiations with the District. If an agreement cannot be reached between these parties, the District may elect to enter into negotiations with the next highest ranked firm. The District reserves the right to negotiate with the top firm for additional professional services related to the creation and submission of a RIDE Necessity of School Construction Stage II Submission.

The Facilities Conditions Assessment of the District’s schools will identify any deficiencies in the existing buildings and site, including program and service areas, space, utility systems and infrastructure, telecommunications/technology, parking, traffic patterns and grounds, and health and safety conditions.

The Education Facilities Master Plan will address short and long term District planning, both educationally and in regard to the suitability of the current school facilities to provide for the educational needs of the District’s students. The development of a 21st century teaching and learning model needs to include the entirety of the buildings and grounds that house our pre-k to grade 12 academic programs.

The 5 Year Capital Improvement Plan will be developed through the consideration and prioritization of the information contained in the Educational Facilities Master Plan and Facilities Conditions Assessment and will be submitted to the Rhode Island Department of Education (RIDE) for approval through a Necessity of School Construction Stage I application.

Section 1: DISTRICT OVERVIEW

The District is located in Bristol and Warren, Rhode Island. The District has a superintendent that reports to a nine member elected school committee that is responsible for the management of the District.

The District has approximately 397 full time employees. The District educates approximately 3,089 students from preschool through grade 12. The District’s facilities include four elementary schools, one middle school, one high school.

The Bristol Warren Regional School District facilities included in this RFP are:

Colt Andrews Elementary School (2 buildings)

Colt	Andrews
570 Hope Street	574 Hope Street
Bristol, RI 02809	Bristol, RI 02809
Grades 4 - 5	Grades K - 3
24,206 SF	31,817 SF

Guiteras Elementary School
35 Washington Street
Bristol, RI 02809
Grades PK - 5
39,107 SF

Rockwell Elementary School
35 Washington Street
Bristol, RI 02809
Grades PK - 5
25,609 SF

Hugh Cole Elementary School
50 Asylum Road
Warren, RI 02885
Grades PK - 5
84,536 SF

Kickemuit Middle School
525 Child Street
Warren, RI 02885
Grades 6 - 8
149,915 SF

Mt. Hope High School
199 Chestnut Street
Bristol, RI 02809
Grades 9 - 12
177,732 SF

Section 2: PROPOSING FIRM QUALIFICATIONS

Proposing Firms should possess the following skills, knowledge, experience and qualifications:

1. Certified as an Accredited Learning Environment Planner (ALEP) by the Association for Learning Environments (A4LE).

2. National experience regarding best practices and standards in education.

3. Research based knowledge of best models for achieving educational goals and outcomes.

4. Educational facilities conditions assessment.

5. Educational facilities master planning and space planning.

6. Conceptual design.

7. Curriculum models.

8. Cost estimating.

9. Analyzing options for new school construction versus existing school renovation to maximize the effective use of all facilities.

10. Proven record of success with the filing and approval of RIDE Necessity of Construction Stage I applications.

11. Experience working with school districts and community-wide constituent groups on the specific task of developing a comprehensive 21st century pre-K to 12 model for teaching and learning throughout its facilities. The process utilized must seek and integrate input from all District stakeholders including teachers, students, parents, administrators, School Committee, Town Council and the community at large.

12. Successful experience designing and guiding an approach that builds consensus among constituent groups in the District. Community stakeholders should be meaningfully involved at every stage in the development of the Plan. The process needs to incorporate information gathered from all stakeholders, including focus groups and public meetings.

Section 3: SCOPE OF WORK

The Firm shall develop a Facilities Conditions Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Stage I Submission (the “Plan”) based on the following scope of work:

1. The Firm shall ensure that the Plan complies with all state and federal requirements.

2. The Firm shall develop and document a thorough, objective Educational Facilities Master Plan that evaluates the educational system (PK-12 curriculum, demographics, facilities, educational outcomes) and establishes long term strategic actions/costs based on the following factors:

   a. 21st Century Teaching and Learning Practices

b. Optimum size learning environments, including class size, grade configuration
c. Space characteristics and recommended support spaces
d. Effective integration of instructional technology
e. Support for the Arts, Music, Athletics and other extracurricular opportunities
f. Social and emotional development of all students
g. Projected future enrollment

3. The Firm shall incorporate community involvement into the development of the Plan throughout the entire process. The community involvement shall include the School Committee, District staff, Town Leadership, parents, teachers, students, the community at large and other key stakeholders to identify issues, needs, and evaluation of options, proposals and priorities using meetings, focus groups and other forms of communication.

4. The Firm shall review and analyze building capacity and space utilization.

5. The Firm shall identify and evaluate costs and benefits of a broad array of facility options.

6. The Firm shall develop conceptual improvement plans and develop probable cost estimates, cost modeling, and financial planning for each concept.

7. The Firm shall incorporate the District's Strategic Plan (currently in development) and other District- wide initiatives, educational programming, optimal school and classroom size, and current educational standards.

8. The Firm shall complete an on-site facility conditions assessment of the District's schools and identify any deficiencies in the existing buildings and site, including program and service areas, space, utility systems and infrastructure, telecommunications/technology, parking, traffic patterns and grounds, and health and safety conditions.

9. The Firm shall develop, in conjunction with the District and community stakeholders, a 5 Year Capital Improvement Plan through a prioritization of the information contained in the Educational Facilities Master Plan and facility conditions assessment. The Firm shall facilitate collaboration between the Town Council, Town Administrator, Town Departments, the District, community stakeholders and School Committee during the development of this plan.

10. The Firm shall develop a RIDE Necessity of School Construction Stage I application, submit the application to RIDE and work with the District and RIDE to gain final approval for the application to move to Stage II in accordance with all Rhode Island School Building Authority deadlines.

11. All work performed by the Firm must be in conformance with the most current RIDE School Construction Regulations.

Section 4: DELIVERABLES

1. Facilities Conditions Assessment Report as described in this RFP.

2. Educational Facilities Master Plan as described in this RFP.

3. 5 Year Capital Improvement Plan as described in this RFP.

4. The Firm shall develop, document and submit a complete RIDE Stage I Necessity of School Construction application.

Section 5: PROPOSAL

A. Technical Proposal

The proposal should address each of the following elements:

1. Proposing Firm's Capability and Qualifications: Please provide a firm profile that includes size, detailing relevant experience and areas of expertise. Please list three references (client name and address, point of contact, phone number, dates of service and type of service provided).

2. Key Staff Qualifications: Provide staff resumes/CV and describe qualifications and relevant experience of key staff who will be involved in the project.

3. Approach/Methodology: Please describe your firm's approach and methodology for accomplishing the Scope of Work described in this RFP.

4. Work Plan/Schedule: Please describe in detail your firm's plan for completing the work, including a detailed timeline/schedule.

B. Cost Proposal

The District will select a Firm through a qualifications-based selection process for the procurement of architectural and engineering consulting services. Responses will be evaluated on the basis of the relative merits of the proposal and firms will be ranked based on the criteria described in this RFP. The top firm will be selected and enter into fee negotiations with the District. If an agreement cannot be reached between these parties, the District may elect to enter into negotiations with the next highest ranked firm.

The District reserves the right to negotiate with the top firm for additional professional services related to the creation and submission of a RIDE Necessity of School Construction Stage II Submission.

Section 6: QUESTIONS

Questions concerning this RFP must be submitted in writing by emailing them to Thomas Wood at thomas.wood@bwrsd.org no later than April 5, 2022 at 4:00PM EST. Please reference RFP# 5-3-25-22 on all correspondence. Answers to questions received, if any,

shall be posted to the Districts website as an addendum on April 7, 2022. This RFP and any addendums can be found at BWRSD website, Business and Finance Office (Bids), https://www.bwrsd.org/Page/2880.

Section 7:. EVALUATION AND SELECTION

The District will select a firm to provide the services outlined in this RFP using a qualifications-based selection process. Proposals will be reviewed and scored by a technical evaluation committee.

The District reserves the right to select the firm that it deems to be the most qualified to provide the services described in this RFP. The District reserves the right to cancel this solicitation in its entirety at its sole discretion.

Proposals will be reviewed and scored based on the following criteria (Total Possible Points = 100):

1. Firm Capability and Qualifications: 25 Points Maximum
2. Key Staff Qualifications: 25 Points Maximum
3. Approach and Methodology: 35 Points Maximum
4. Work Plan/Schedule: 15 Points Maximum

Firms may be required to submit additional written information or be asked to make an oral presentation to the technical evaluation committee as part of the selection process.

Section 8: REFERENCE DOCUMENTS

1. Rhode Island Department of Education (RIDE) School Construction Regulations: http://www.ride.ri.gov/FundingFinance/SchoolBuildingAuthority/Statutes,RegulationsandGuidance.aspx#37601415-regulations

2. Rhode Island Department of Education (RIDE) Necessity of School Construction: http://www.ride.ri.gov/FundingFinance/SchoolBuildingAuthority/NecessityofSchoolConstruction.aspx

3. Rhode Island Department of Education (RIDE) Facility Data & Information: http://www.ride.ri.gov/FundingFinance/SchoolBuildingAuthority/FacilityDataInformation.aspx

4. Rhode Island Department of Education (RIDE) Basic Education Program: http://www.ride.ri.gov/InformationAccountability/Accountability/BasicEducationProgram.aspx

BID FORM

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission:

The undersigned, having familiarize themselves with all local conditions affecting the cost of work, and having examined the site and all applicable Bidding Documents herein, and herein referenced, including, but not limited to, all addenda issued thereto, hereby propose to furnish all labor, material, equipment, applicable taxes and services required for proper completion of this project.

Please complete the information below as concisely as possible.
If you wish to provide additional information, please attach and reference the location of additional information.

General Information	
Legal Name	
Street Address	
City / State / Zip	
Telephone / Fax	
E-Mail Address	
Primary Contact Name **Contact Information**	
Confirm, by your signature, that your organization agrees to abide by the Submission Requirements.	_____ **Signature** _____ **Title**

Appendix A

INSURANCE EXHIBIT- PROFESSIONAL CONTRACTS

The professional individual or firm shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damage for property which may arise from or in connection with the performance of the contractor's work by the individual firm, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the contractor's bid.

For the purpose of this clause: the term "professional individual or firm" and "contractor" shall also include their respective agents, representatives, employees or subcontractors; the term "Bristol Warren Regional School District" or "District" shall include their respective officers, employees, volunteers, boards, and commissions.

Additional forms of insurance may be necessary based upon the specific work performed by the contractor. When additional forms of insurance are required, the minimum amount of such coverages and the terms thereof shall be determined by the District and Superintendent and/or Chief Financial Officer and shall be stated, as well as a description of the types of additional coverage required, in an addendum to this exhibit.

Minimum Insurance Coverage Required

1. Broad form comprehensive general liability, occurrence form.
2. Workers' Compensation: limits as required by the State of Rhode Island.
3. Employer's liability, occurrence form.

Minimum Limits of Insurance

1. Comprehensive general liability: $1,000,000 combined single limits per occurrence for bodily injury, personal injury, property damage, and products/completed operations.
2. Workers' Compensation: limits as required by the State of Rhode Island.
3. Employer's liability: limits of $1,000,000 per occurrence.

Deductibles and Self-Insured Retention

Any deductibles or self-insured retentions must be declared to and approved by the Bristol Warren Regional School District. At the option of the District, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, or the contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

Notice of Cancellation or Non-Renewal

Each insurance policy required by this exhibit shall be endorsed to state that coverage shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty {30) days' prior written notice by certified mail, has been given to the District.

Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

1. Comprehensive General Liability Coverage:

a. The District and their respective officers, agents, officials, employee volunteers, Boards and commissions are to be covered as insureds as respects : liability arising out of activities performed by or on behalf of the contractor ; products and completed operations of the contractor; premises owned, leased or used by the contractor . The coverage shall contain no special limitations on the scope of protection afforded to the District.

b. The contractor's insurance coverage shall be the primary insurance with respect to the Bristol Warren Regional School District. Any insurance or self-insurance maintained by the District shall be in excess of the contractor's insurance and shall not contribute with it.

c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Bristol Warren Regional School District.

d. Coverage shall state that the contractor insurance shall apply separately to each Insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. The insurer shall agree to waive all rights of subrogation against the District for losses arising from the work performed by the contractor for the District.

Acceptability of Insurers

1. Insurance is to be placed with insurers with a Best rating of no less than A: VII.

2. Insurance companies must either be licensed to do business in the State of Rhode Island, or otherwise deemed acceptable by the Bristol Warren Regional School District, Superintendent and/or the Chief Financial Officer.

Verification of Coverage

The contractor shall furnish the District with certificates of insurance affecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be received and approved by the District before work commences. Renewal of expiring certificates shall be filed thirty (30) days prior to expiration. The District reserves the right to require complete, certified copies of all required policies, at any time.

Appendix B

State of Rhode Island
Office of Diversity, Equity and Opportunity (ODEO)
Minority Business Enterprise Compliance Office
Minority Business Enterprise Utilization Plan

Company Name:_____

Representative's Name who administers MBE Program: _____

Street Address: _____

City, State, Zip: _____ Telephone: _____

Email: _____ Project Location: _____

Bid or Project #: _____ Date Bid Opened: _____

Description of Work: _____

Contract Value: _____ MBE % Assigned: _____

Total # of All Subcontractors/Suppliers used: ___ # of MBE Subcontractors/Suppliers used: _____

List All Subcontractors/Suppliers/Consultants/Independent Contractors – Total Dollar Amounts – Scope of Work:

Subcontractor / Supplier	Dollar Award	Scope/Description of Work	RI Certified M/WBE Yes/No

Please note that all MBE/WBE firms must be certified by the RI MBE Compliance Office, and that MBE/WBE firms must self-perform 100% of the work with their own forces or subcontract to another RI certified MBE/WBE in order to receive participation credit. Vendors may count 60% of expenditures for materials and supplies obtained from an MBE certified as a regular dealer/supplier, and 100% of such expenditures obtained from an MBE/WBE certified as a manufacturer. For firms certified as a broker, you may receive MBE participation credit only for the fees and commissions charged for the procurement of the goods and materials, but not the cost of the materials themselves.

The above referenced contract will not be released until this plan has been approved by the Director of the Department of Administration or its designee.

For assistance and advice in identifying MBE/WBE firms, please call the Minority Business Enterprise Compliance Office at (401) 574-8670. The directory of all certified MBE firms is also located at www.mbe.ri.gov .

Signature of Authorized Agent of Business: _____ Date: _____

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 High Street
Bristol, Rhode Island 02809

Public RFP# 5-3-25-22

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission

ADDENDUM No. 1

This Addendum forms a part of the RFP and modifies the RFP as issued on March 25, 2022.

Item 1.01 **General Information**

The RFP as posted using the link was an incorrect version. Please use the link below to access the correct version.

https://docs.google.com/document/d/1Gw5rmSqoKVu4u5IYkc5tuDBHVbDnjWHGSJlN1-Cj-hQ/edit?usp=sharing

Item 1.02 **General Bid Schedule**

The Bid date is being change as noted:

General Bid Schedule

RFP Released	March 25, 2022
Bidder Questions and Clarifications Ends	April 8, 2022 4:00pm
Response to Questions/Issue Addendum	April 11, 2022
Bids Due Back	**April 19, 2022 1:00 pm**
Bid Opening	**April 19, 2022 1:15 pm**
Planned Date to Submit Stage I to RIDE	No later than September 09, 2022

(THIS COMPLETES ADDENDUM No. 1)

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

February 15, 2023

Mario Carreno, ALEP
Chief Operating Officer
School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, RI 02903

Statement on Building Inspections

Pursuant to RIGL 16-21-3, the Bristol Warren Regional School District will obtain building inspections or notify responsible parties to determine that school buildings conform to appropriate state law and regulation by August 1st.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

2: INITIAL COMPLIANCE CERTIFICATE

INCLUSIONS:

- Initial Compliance Certification Form

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW.BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

INITIAL COMPLIANCE CERTIFICATION

This Initial Compliance Certification ("ICC") must be completed by all Applicants, as defined by RIDE School Construction Regulation (SCR) 200-RICR-20-05-4.3.A.1, who intend to submit a Necessity of School Construction ap- plication to the Rhode Island School Building Authority (the "Authority"), as defined by to R.I.G.L. 16-105.2. The Authority will not consider a District, as defined by RIDE School Construction Regulation (SCR) 1.01, to be eligible for School Housing Aid or School Building Authority Capital Funding until after the District has properly submitted an ICC and received Council on Elementary and Secondary Education approval.

1. The District hereby acknowledges and agrees that in order to qualify for any funding from the Authority, the District must comply with R.I.G.L. 16-7-35 through 16-7-45 and RIDE SCR 200-RICR-20-05-4 et seq. which require the Authority's collaboration and approval at each step of the Necessity of School Construction approval process and further acknowledges and agrees that any actions taken, costs incurred or agreements entered into for the repair, renovation or construction of school facilities without the explicit prior written approval of the Authority shall not be eligible for state aid.

2. The District hereby certifies that it will study and consider all available options for remedying the deficiencies identified through the Necessity process, including, to the extent applicable, regionalization or tuition agreements with adjacent school districts, district assignment policies within the school district, rental or acquisition and any necessary rehabilitation or usage modification of any existing building which could be made available for school use.

3. The District hereby acknowledges and agrees that, before the Council on Elementary and Secondary Education can grant final approval of a Project, the District must submit documentation of community sup- port, including City/Town Council and School Committee approvals, vote to authorize and appropriate the full amount of funding for the Proposed Project that is necessary to meet the total project budget, as agreed to by the Authority and as described in RIDE SCR RIDE SCR 200-RICR-20-05-

4. The District hereby acknowledges and agrees that, in connection with a Proposed Project or an Approved Project, it shall use any standard forms (certifications, statements, affidavits, and agreements) established or developed by the Authority.

5. The District hereby acknowledges and agrees that it will notify RIDE in writing six months prior to the sale, lease, demolition or other removal from service of any school facility in the district's jurisdiction, or portion thereof. Where a building that has received school construction payments from RIDE for a building that has not remained in service for 50 years, RIDE may recapture at its discretion a portion of the State aid.

6. The District shall undertake a Feasibility Study to investigate potential options and solutions, including cost estimates, to the School's deficiencies and issues, as identified through the Necessity of School Construction process, or as otherwise determined by the Authority.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

The District hereby acknowledges and agrees that, as part of a Feasibility Study where a new school option is among the options that may be studied, the District shall study potential sites for the Proposed Project and hereby acknowledges and agrees that it shall base its site selection for a Proposed or Approved Project on, among other things, cost and environmental factors, including an awareness of soil conditions and their probable effect on foundation and site development costs, transportation effects, dislocation of site occupants, and relationship to other community facilities in accordance with the School Construction Regulations.

7. The District hereby acknowledges and agrees that any Approved Project for the construction of a new facility, or for the addition to or renovation of an existing school facility, shall have a useful life of fifty (50) years as a public school in the District as required by RIDE SCR 200-RICR-20-05-4.

8. The District hereby acknowledges and agrees that it shall procure the necessary professionals to conduct any necessary assessments, develop an educational program and specification, design and engineer Ap- proved Projects, and manage construction. The necessary professional must monitor compliance with the regulations through the design and construction process to ensure that all building systems are in compliance with regulations and are consistent with all plans, construction documents, and cost estimates as required by RIDE SCR 200-RICR-20-05-4.

9. The District hereby certifies that it has specifically read the provisions of RIDE School Construction Regulations RIDE SCR 200-RICR-20-05-4 and certifies that it has met or will meet each of the requirements described therein and further acknowledges and agrees that the District's failure to comply with each requirement, as determined by the Authority, may be grounds for disapproval of the District's application.

District Name: **Bristol Warren Regional School District**

Ana C. Riley

By: Ana C. Riley
Title: Superintendent of Schools Date: 2.6.2023

By signing this Initial Compliance Certification, I hereby certify that I have read and understand the terms of this Initial Compliance Certification and further certify on behalf of the Applicant that each of the above statements is true, complete and accurate.

Nichola Piper

By: Nichola Piper
Title: Chair of the School Committee Date: 2/6/2023

By signing this Initial Compliance Certification, I hereby certify that I have read and understand the terms of this Initial Compliance Certification and further certify on behalf of the Applicant that each of the above statements is true, complete and accurate.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

3: SCHOOL BUILDING COMMITTEE MEMBERS

INCLUSIONS:

- School Building Committee Form

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW.BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

February 15, 2023

Mario Carreño, ALEP
Director
School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, RI 02903

Dear Mr. Carreño:

In accordance with RIDE School Construction Regulations 200-RICR-20-05-4, attached for your review and approval is the membership of the School Building Committee for the Bristol Warren Regional School District.

The Committee was formed in accordance with the provisions of all applicable statutes, local charters, by-laws and agreements of the Regional School District. Committee Members include the following:

School Building Committee Table: Valid as of February 15, 2023

Designation **Committee Role – Alignment w/ RIDE 4.9.2.A.2**	**Name**	**Background**	**Voting Member**
Superintendent of Schools	Ana C. Riley	BWRSD Superintendent of Schools	Yes
Member of School Committee	Adam McGovern	School Committee Member	Yes
Member of School Committee	Tara Thibaudeau	School Committee Member	Yes
Local official responsible for building maintenance	Frank Caliri	Director of Facilities	Yes
Municipal representative	Steven Contente	Bristol Town Administrator	Yes
Municipal representative	Kate Michaud	Warren Town Manager	Yes
School Principal	Michelle King	MHHS Principal	Yes

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW.BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Member who has knowledge of the educational mission and function of the facility	Nicole Lyons	College & Career Coordinator, MHHS	Yes
Local budget official or member of the local finance committee	Steve Calenda	Warren Town Council Member	Yes
Member of the community with architectural, engineering and/or construction experience	Ed Tanner	Bristol Town Planner	Yes
Other			

After approval of this committee by the Authority, the Regional School District will notify the Authority in writing within 20 calendar days of any changes to the membership or the duties of said committee.

Sincerely,

Ana C. Riley
Superintendent of Schools

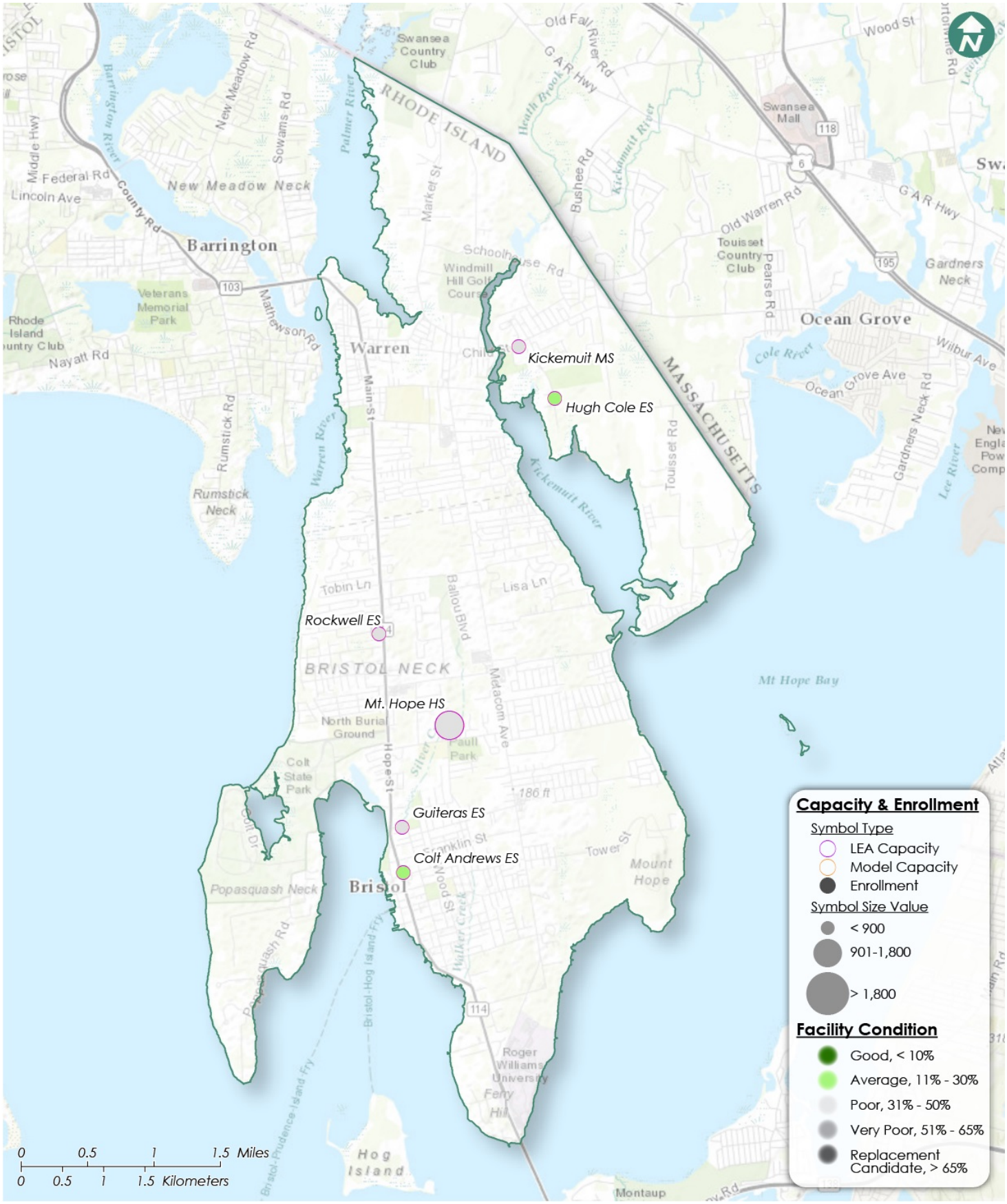
The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

4: LEA MAP

INCLUSIONS:

- Regional School District Map

Bristol Warren



M▪A▪P▪P▪S ©, Jacobs 2017

5: ASSET PROTECTION PLAN

INCLUSIONS:

- AP Plan Letter
- E-RIDE Printout

RHODE ISLAND DEPARTMENT OF EDUCATION
School Building Authority
School Housing Aid

F-107-2023

Maintenance Expenditures Certification

5. LEA:	Bristol Warren Regional School District
6. Total Maintenance Expenditures in FY 2022:	$1,415,219
7. Final FY 2022 Operating Budget	$55,368,802
8. Which annual maintenance expenditure requirement did the LEA meet, pursuant to RIGL 16-7-23?	X 2.5% of Operating Budget ☐ % of Replacement Value ☐ $3 a Square Foot
a. If none, please indicate the shortfall between the annual maintenance expenditure requirement and actual maintenance expenditures:	FY _____

RIGL 16-7-36(11) defines maintenance expenditures as amounts spent for repairs or replacements for the purpose of keeping a school facility open and safe for use, including repairs, maintenance, and replacements to a school facility's heating, lighting, ventilation, security and other fixtures to keep the facility or fixtures in effective working condition. Maintenance **shall not include** contracted or direct custodial or janitorial services, expenditures for the cleaning of a school facility or its fixtures, the care and upkeep of grounds, recreational facilities, or parking lots, or the cleaning of or repairs and replacements to movable furnishings of equipment.

CERTIFICATION:
I certify that the maintenance expenditures reported on this form are in accordance with Rhode Island General Law 16-7-36(11). In the event that a district does not meet its minimum expenditure requirement in a given year, the state shall direct state housing aid paid pursuant to 16-7-41 or 16-105-5, in an amount equal to the shortfall, to a restricted fund created by the district and dedicated solely to meeting maintenance requirements.

Ma C. R — 8·1·22
Superintendent's Signature — Date

[signature] — 7/29/22
Municipal Finance Officer's Signature — Date

District Asset Protection - Work - Microsoft Edge

https://www.eride.ri.gov/DAPPS/admin/viewDistrict/96

2022 Bristol Warren district asset protection

Report Signed on Jun/30/2022

Building information

School Name	Grade Served	Facility Rating	Bldg SF	Bldg Value	Current Enrollment	Capacity	Tools for School
Colt Andrews School	PF KF 01 02 03 04 05	2	71023	$20,516,800	300	432	N
Guiteras School	KF 01 02 03 04 05	2	38673	$8,656,300	234	288	N
Hugh Cole School	PK PF KF 01 02 03 04 05	2	84536	$19,228,000	510	780	N
Kickemuit Middle School	06 07 08	2	144839	$38,735,400	650	879	N
Mt. Hope High School	09 10 11 12	2	171897	$54,069,100	879	1407	N
Rockwell School	KF 01 02 03 04 05	2	25609	$5,265,100	264	312	N

*** Facility Condition Rating Definition**

1. Building in good condition
2. Building generally in good condition, some systems needs
3. Building in fair to poor condition
4. Building in poor condition, major renovation or replacement

Expenditure

School Name		Past Expenditure			Future Expenditure				
	Project	FY_2020	FY_2021	FY_2022	FY_2023	FY_2024	FY_2025	FY_2026	FY_2027
Colt Andrews School (96105)	Capital Improvement Subtotal	7,570	0	7,072	0	0	0	0	0
	Maintenance Subtotal	148,152	162,000	62,947	68,391	275,000	285,000	290,000	300,000
	Grand Total	155,722	162,000	70,019	68,391	275,000	285,000	290,000	300,000
Guiteras School (96104)	Capital Improvement Subtotal	5,815	0	33,637	0	0	0	0	0
	Maintenance Subtotal	126,855	350,000	153,343	58,129	225,000	230,000	240,000	245,000
	Grand Total	132,670	350,000	186,980	58,129	225,000	230,000	240,000	245,000
Hugh Cole School (96113)	Capital Improvement Subtotal	63,878	697,998	66,002	0	0	0	0	0
	Maintenance Subtotal	122,442	500,000	133,727	89,219	300,000	310,000	320,000	325,000
	Grand Total	186,320	1,197,998	199,729	89,219	300,000	310,000	320,000	325,000
Kickemuit Middle School (96112)	Capital Improvement Subtotal	147,257	586,046	138,870	0	0	0	0	0
	Maintenance Subtotal	132,253	500,000	135,949	147,278	350,000	360,000	370,000	380,000
	Grand Total	279,510	1,086,046	274,819	147,278	350,000	360,000	370,000	380,000
Mt. Hope High School (96107)	Capital Improvement Subtotal	1,216,741	539,953	207,138	0	0	0	0	0
	Maintenance Subtotal	160,445	150,000	127,943	341,664	250,000	260,000	265,000	275,000
	Grand Total	1,377,186	689,953	335,081	341,664	250,000	260,000	265,000	275,000
Rockwell School (96106)	Capital Improvement Subtotal	47,312	0	2,915	0	0	0	0	0
	Maintenance Subtotal	114,424	50,000	28,325	60,125	100,000	105,000	107,000	110,000
	Grand Total	161,736	50,000	31,240	60,125	100,000	105,000	107,000	110,000
Sum of Maintenance Subtotal:		804,571	1,712,000	642,234	764,806	1,500,000	1,550,000	1,592,000	1,635,000

6: FACILITY MANAGER CREDENTIALS

INCLUSIONS:

- Director of Facilities Resume
- IAQ Management Policy
- IAQ Management Plan

Unrestricted Content

Frank M. Caliri

188 New Meadow Road • Barrington, RI 02806
Phone: 401-595-4444 (cell)
Email: frankcaliri@gmail.com

OBJECTIVE

A manager with a passion for today's technology market, pursuing a continued career in a management capacity to bring site efficiency and productivity; a high proficiency in IT technology, skilled in organizational operations, contractor/sub-contractor & union labor negotiations, construction and planning based projects, high attention to detail; demonstrated leadership qualities including the ability to multi-task, think on the fly, and change pace based on priority while providing exceptional customer service.

EDUCATION

Massachusetts Maritime Academy, Buzzards Bay, MA *2003*

•Bachelor of Science in Plant Facility and Environmental Engineering

LICENSES/ AWARDS/ SKILLS

•EVMS Certified
•Raytheon Project Manager Tier 2 Certification
•Maximo
•AUTOCAD (versions 2000, LT., Turbo CAD, 11, 12, 14), MS Office Suite, MS Project, Lotus Works, Facility Center 7.1.4, Dealer Business System, Maximo, PRISM, HAAS, MS Project, Sametime, Service Information System, Electronic Technician
• Wastewater Treatment Grade 4-M Certified Operator
•Eagle Scout Award

Current Employment

Director Of Facilities. *2022 – Present*
Bristol Warren Regional School District *Bristol, RI*

Professional Employment History

Facilities I Manager. *2010 – 2022*
Portsmouth Center, Raytheon Technologies *Portsmouth, RI*

- Supervised 30 skilled labor employees of various trades, along with outside service contracts.
- Daily supervision of skilled labor employees of varied trades (Carpentry, HVAC, Electrician, etc.) assigning corrective (CM) and preventative maintenance (PM) work orders (2010-2014 Providence, Constitution, and Pintado Buildings).
- Regular interface with bargaining unit, contractors and customers site wide.
- Act as facilities point of contact (POC) with union stewards for all first step RE grievances.

- 2012-2015 held position as Portsmouth Control Account Manager (CAM) supporting the STaRR program consolidation effort ($12M in total), providing supervision, planning, and direction to achieve company set goals.
    - Completed PH I $700k under budget.
    - Maintained PH II schedules in compliance with EVMS while managing reduced RE headcount.
- Perform daily and monthly training sessions including leadership of monthly staff safety meetings, performance of weekly EH&S walkabouts, daily Toolbox training sessions, Job Hazard Assessments and coverage for site Facilities Manager as needed.
- Support the sites safety program in reducing recordable injuries through daily promotion and enforcement.
- Continuous improvement of customer satisfaction, team communication, and on time completion of work requests and PM's.
- Certified Raytheon Project Manager Tier 2
- Portsmouth site energy champion.
- Steering Committee EHS member.

Assistant Director of Engineering *2009 - 2010*
St. Joseph Health Services of RI/Charter Care-HHA Services *North Providence, RI*

- Managed daily operations, with high concern for budget and cost control for St. Joseph's Hospital (outpatient clinic/30 bed inpatient), Our Lady of Fatima hospital (192 bed hospital) and five off-site locations (tenants, offices, clinics).
- Directed weekly/monthly meetings with clients, contractors, and employees for reporting and maintenance of operational standards.
- Managed over 14 skilled labor employees of varied trades (Carpentry, HVAC, Electrician etc...)
- Responsible for resolving resource management issues by working with other managers to determine priorities and assigning/reassigning resources to projects, reorg of systems through use of Facility Manager Program (software).
- Projects completed including, but not limited to: aesthetic face-lifts, mechanical upgrades/replacements, area re-designs, building extensions, general maintenance, contract/bid negotiations for plant and facilities operations.
- Responsible for all Statements of Conditions (SOC's) and Environment of Care (EOC) documentation for all facilities.
- Maintained constant preparation for audit/inspections in accordance with JCAHO standards.
- Performed weekly/monthly inspections of all facilities including, but not limited to: SWAT, Psych services, common maintenance and machine room checks.

Project Manager *2008*
Saints Medical Center-Crothall *Lowell, MA*

- Responsible for all facility-based projects, construction, mechanical, electrical, or otherwise, for 153 bed hospital.
- Directed weekly project meetings, with clients, contractors, and company executives, along with the production of project meeting minutes.
- Managed over 15 skilled labor employees of varied trades (Carpentry, HVAC, Electrician, etc.)
- Provided complete supervision of contractor/sub-contractors for all projects, along with negotiation of contracts associated.

- Responsible for resolving resource management issues by working with other managers to determine priorities and assigning/reassigning resources to projects.
- Projects completed to include, but not limited to: aesthetic face-lifts, building demolition, elevator install, area re-designs, Full Office design and re-construction, building extensions, general maintenance, facility upgrades and repairs.
- Assisted in contract/bid negotiations for plant and facilities operations.

Service Support Coordinator *2004-2007*
Milton CAT *Milford, MA*

- Pilot in new Customer Support Center.
- Total management of customer software, support and sales programs concerning Caterpillar machines and engines for the Northeast Region.
- Sales and investment acquisitions ($15k to $100k) of support programs.
- Responsible for the creation of legal documents and contracts for all service programs and contractual agreement.
- Direct contact with customers for support and customer service.
- Cost/budget analysis.
- Contamination control for 8 locations including primary headquarters.
- Responsible for progressing inter-relationships between various schools and Milton Cat for the Vo-Tech Program.
- Program administration and contract negotiation of sub-contracts for all new clients.

Facilities Project Coordinator *2003-2004*
Women & Infants Hospital-Sodexo Corp *Providence, RI*

- Data base reconstruction and reorganization of PM system.
- Management of 30 skilled labor employees in union operated facility.
- Blueprint alterations.
- Office Design and re-organization
- Vendor and Contract negotiations.
- Contract management of facilities operations.

Field Engineer *2001-2002*
State of RI, Dept. of Environmental Management, Air Resources *Providence, RI*

- Field data collection and entry.
- Company regulations and emissions.
- Site machinery repairs and maintenance.
- Stage II inspections.
- Company site inspections.

ADDITIONAL RELEVANT EXPERIENCE

3rd Company Squad Leader, Damage Control Officer *1997-2000*
Massachusetts Maritime Academy *Buzzards Bay, MA*

- 66 cadets under command.
- Physical and mental training of cadets.
- Applied disciplinary actions towards cadets.
- Daily inspections of cadet barracks.

Engineering Steam Shipboard Experience *1996-2000*
Massachusetts Maritime Academy *TS Patriot State/ TS Empire State*

- Emergency Training and Management.
- Emergency Tactics and Strategic Response.

- Pump and Motor Maintenance and repair.
- Evaporator Maintenance, repair and operation.
- HVAC and Generator Maintenance, repair and operation.

Level 2 Park Ranger *1996-1997*
State of RI, Dept. of Environmental Management, Parks and Recreation *Pt. Judith, RI*

- Alcohol control and enforcement.
- Enforcement of parks and fishing regulations.
- General public safety.
- Protection of local wildlife.

Indoor Air Quality Policy

The purpose of this policy is to ensure that the Bristol Warren Regional School District will adhere to the United States Environmental Protection Agency program known as TOOLS FOR SCHOOLS, which regulates Indoor Air Quality (IAQ). In the Bristol Warren Regional School District indoor air quality is related to circumstances and conditions of the overall school environment. These vary from school to school and include, but are not limited to the following:

a. General cleanliness
b. Animals in the classroom
c. Drain traps in the classroom
d. Moisture in the classroom
e. Thermal comfort
f. Ventilation
g. Local exhaust fans
h. Science supplies and equipment, athletic, musical, theatrical, electronic equipment and machinery
i. General supplies
j. Locker room and gymnasium features and equipment

Each school, in collaboration with the Maintenance Department shall establish an Indoor Air Quality Management Plan to be implemented immediately. This plan will be used as the guide for developing work orders and/or actions to remedy circumstances in each of the schools. Any actions requiring capital improvements and/or School Committee approval must adhere to appropriate School Department policies. Ordinary maintenance repairs, allowed for in the District's Budget, are subject to the protocols of the IAQ Management Plan.

All School Indoor Air Quality Management Plans must be kept on file in their respective schools, as well as in the office of the Superintendent. It is the Superintendent's responsibility to ensure that plans have been developed, are adhered to and are revised as necessary.

Individual (s) Responsible

The Maintenance Department, under the supervision of the Director of Facilities, is responsible for the implementation of the IAQ Plans. The school principal or their designee(s) shall serve as the IAQ Coordinator(s) for their respective sites.

It is required by Federal Law that an individual in the School District be designated to assure and supervise the correct management of the Indoor Air Quality in school facilities. The Director of Facilities shall serve in this capacity.

References: Necessity of School Construction- RIDE 5/15/2008

ADOPTED: July 18, 2011

Bristol Warren Regional School District, Bristol, Rhode Island

File: FECCA

No CFC or H-CFC Use Policy

The Bristol Warren Regional School District bans the use of CFC or HCFC-based refrigerants in building heating, ventilating, air conditioning and refrigeration (HVAC & R) systems, as well as the installation of CFC or HCFC-based refrigerants in heating, ventilating, air conditioning and refrigeration (HVAC & R) systems in all newly constructed buildings district-wide.

For all renovation projects, replacement of any equipment that utilizes CFC or HCFC-based refrigerants and is over ten (10) years old will be required.

In addition, the Superintendent of Schools shall designate personnel in the Bristol Warren Regional School District to develop and implement a plan to phase out the use of such refrigerants in all existing equipment within five years.

ADOPTED: April 25, 2011

Legal Ref.: RI Department of Education Necessity of School Construction

Bristol Warren Regional School District, Bristol, Rhode Island

File: FECCB

ENERGY EFFICIENT EQUIPMENT/ APPLIANCES POLICY

The Bristol Warren School District shall abide by the Federal Energy Policy Act of 1992, effective October 1997.

All newly purchased equipment and appliances to be used in Bristol Warren Schools shall be ENERGY STAR compliant. Additionally, this policy prohibits the purchases of low efficiency products, including incandescent task lights, halogen torchieres, and portable electrical resistance heaters.

ADOPTED: April 25, 2011

Legal Ref.: Federal Energy Policy Act of 1992

File: EC

BUILDINGS AND GROUNDS MANAGEMENT

The superintendent will be responsible for establishing and supervising a system of buildings and grounds management. He may delegate this responsibility to the Director of Administration and Finance and through him or her to the Supervisor of Plant and Facilities.

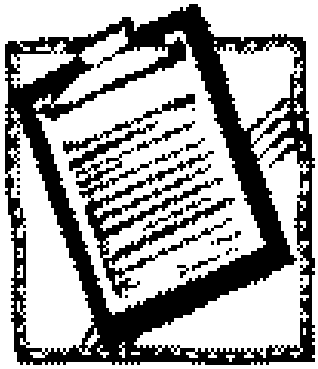
The School Committee's subcommittee on facilities will oversee the management of buildings and grounds through the Superintendent of Schools, the Director of Administration and Finance, and the Supervisor of Plant and Facilities. Custodial and maintenance employees will be under the supervision of the Supervisor of Plant and Facilities.

Adopted: January 24, 1994
Revised: February 25, 2008

LEGAL REFS.: 16-2-15

CONTRACT REFS.: BWEA Agreement, Art.

LAST MODIFIED: JULY 1, 2013
Adopted from EPA Tools for School Walkthrough Inspection Checklist



Walkthrough Inspection Checklist

Name: _____

School: _____

Room or Area: _____ Date Completed: _____

Signature: _____

Instructions

1. Complete the Checklist.
   - Mark the "yes," "no," or "didn't check" box beside each item.
   - If a question does not apply, please cross it out.
   - Make comments in the "Notes" section as necessary.
2. Return the checklist portion of this document to the IAQ Coordinator.

1. GROUND LEVEL

		Yes	No	Did not check
1a.	Classrooms are dusted and vacuumed regularly	❑	❑	❑
1b.	Offices are dusted and vacuumed regularly	❑	❑	❑
1c.	No clutter (including books and supplies) blocks classroom heating vents	❑	❑	❑
1d.	Ventilation units operate properly	❑	❑	❑
1e.	No obstructions block the air intakes	❑	❑	❑
1f.	No nests and/or droppings exist near outdoor air intakes	❑	❑	❑
1g.	No tree branches overhang the roof of the building	❑	❑	❑
1h.	No external walls have rodent-sized holes in them	❑	❑	❑
1i.	No window screens have holes in them	❑	❑	❑
1j.	Door sweeps are installed in every external door	❑	❑	❑
1k.	Dumpsters are located away from doors, windows, and/or outdoor air intakes	❑	❑	❑
1l.	Potential sources of air contaminants are not near the building (chimneys, stacks, industrial plants, exhaust from nearby buildings)	❑	❑	❑
1m.	Vehicles do not idle near outdoor air intakes	❑	❑	❑
1n.	"No idling" signs are posted by outdoor air intakes	❑	❑	❑
1o.	Pesticide application is minimal	❑	❑	❑
1p.	Proper drainage away from the building exists (including roof downspouts)	❑	❑	❑
1q.	Ceiling tiles do not show water damage	❑	❑	❑
1r.	Sprinklers spray away from the building and outdoor air intakes	❑	❑	❑
1s.	Walk-off mats are used at exterior entrances and are cleaned regularly	❑	❑	❑

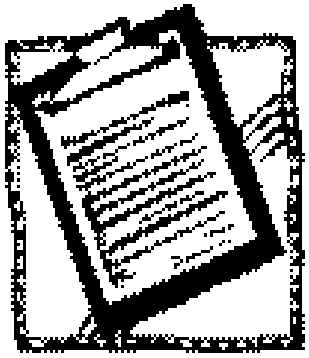
2. ROOF

While on the roof, consider inspecting the HVAC units (use the Ventilation Checklist*).*

2a.	The roof is in good condition	❑	❑	❑
2b.	There is no evidence of water ponding	❑	❑	❑
2c.	Ventilation units operate properly (air flows in)	❑	❑	❑
2d.	Exhaust fans operate properly (air flows out)	❑	❑	❑
2e.	Air intakes remain open, even at minimum setting	❑	❑	❑
2f.	No nests and/or droppings exist near outdoor air intakes	❑	❑	❑
2g.	Air from plumbing stacks and exhaust outlets flows away from outdoor air intakes	❑	❑	❑

3. ATTIC

3a.	No evidence of roof and/or plumbing leaks	❑	❑	❑
3b.	No animal or bird nests presents	❑	❑	❑



4. GENERAL CONSIDERATIONS

	Yes	No	Did not Check
4a. Both temperature and humidity are maintained within acceptable ranges	❑	❑	❑
4b. No obstructions exist in supply and/or exhaust vents	❑	❑	❑
4c. No obvious odors are detected	❑	❑	❑
4d. No signs of mold and mildew growth	❑	❑	❑
4e. No signs of water damage	❑	❑	❑
4f. No evidence of pests	❑	❑	❑
4g. No obvious pest food sources are present	❑	❑	❑
4h. Food is not eaten in the classrooms	❑	❑	❑
4i. Teachers do not bring cleaning supplies from home	❑	❑	❑
4j. All cleaning supplies are Green Seal, EcoLogo, or EPA Design for Environment certified	❑	❑	❑
4k. All concerns from school occupants noted, reviewed, and addressed	❑	❑	❑

5. BATHROOMS AND GENERAL PLUMBING

5a. Bathrooms and restrooms have operating exhaust fans	❑	❑	❑
5b. Drain traps properly maintained: Water is poured down floor drains successfully once per week (approx. 1 quart of water)	❑	❑	❑
Water is poured into sinks successfully at least once per week (about 2 cups of water)	❑	❑	❑
Toilets are flushed successfully at least once per week	❑	❑	❑

6. MAINTENANCE SUPPLIES

6a. Chemicals are used only with adequate ventilation and when building is unoccupied	❑	❑	❑
6b. Vents in chemical and trash storage areas are operating properly	❑	❑	❑
6c. Portable fuel containers are properly closed	❑	❑	❑
6d. Power equipment, like snowblowers and lawn mowers, have been serviced and maintained according to manufacturers' guidelines	❑	❑	❑

7. COMBUSTION APPLIANCES

7a. No combustion gas and fuel odors are detected	❑	❑	❑
7b. Combustion appliances have flues or exhaust hoods	❑	❑	❑
7c. No leaks, disconnections, and/or deterioration detected	❑	❑	❑
7d. No soot detected on inside or outside of flue components	❑	❑	❑

8. OTHER

8a. No peeling and/or flaking paint (if the building was built before 1980, this could be a lead hazard)	❑	❑	❑
8b. Building tested for radon within the last three years	❑	❑	❑

NOTES

Rhode Island School as a Tool Protocol
SCHOOL/DISTRICT Agreement

SCHOOL/DISTRICT Bristol Warren Regional School District

By this agreement, the SCHOOL/DISTRICT commits to implementing the School as a Tool / RI Sustainable Schools Protocol, pursuant to the RIDE School Construction Program.

The SCHOOL/DISTRICT has extensive infrastructure ideal for the School as a Tool protocol. The school itself can become a hands-on teaching tool to enable instruction about the benefits of high-performance design as well as to help prepare an environmentally literate student body. According to the RI Environmental Literacy Plan (2011), an environmentally literate student is one who has "the opportunity to become aware, inquire, investigate, and develop responsible citizenship action plans or behavior regarding local, national, or global environmental issues." In preparing environmentally literate students, RI schools and communities also "have the opportunity to concurrently improve students' proficiency" in core academic areas.

The SCHOOL/DISTRICT will develop the School as a Tool program by integrating sustainability through curriculum, campus, and community as outlined in the five (5) components below.

I. Establish a Green Team

The SCHOOL/DISTRICT will assemble a motivated and empowered group of stakeholders including, but not limited to, principals, teachers, facility managers, students, nurses, and/or parents. The Green Team will:

- adopt an environmental vision statement specific to the SCHOOL/DISTRICT.
- plan and develop an action plan to be shared with all stakeholders.
- meet on a regular basis to implement, and monitor the action plan.
- coordinate and direct School as a Tool related initiatives and activities.

Resources for establishing a green team:

- *Green Schools Initiative: http://greenschools.net/*
- *Healthy Schools Campaign: http://www.greencleanschools.org/*
- *RIC Green Initiatives: http://www.ric.edu/green/*
- *URI Green Team: http://www.uri.edu/sustainability/greenteams.php*
- *The Green Team (Massachusetts): http://www.thegreenteam.org/*
- *Eco-Schools: http://www.eco-schools.org/*

II. Conduct a School Environment Survey

Students and teachers will engage in data collection to acquire information about the SCHOOL/DISTRICT that will inform their forthcoming decisions.

- The survey might collect data on: greenhouse gas emissions; water quality and conservation; waste production and disposal; recycling; transportation methods; pest management; air quality; cleaning products and chemical management; physical fitness and outdoor time; food and nutrition; environmental education activities; and more.

Resources for conducting a school environment survey:

- *RI Green Ribbon Schools Online Application: http://www.ride.ri.gov/finance/funding/construction/schoolconstruction.aspx*
- *Green Flag Schools' The School Environment Survey: http://www.greenflagschools.org/Survey.pdf*
- *US EPA Healthy School Environment Resources: http://cfpub.epa.gov/schools/index.cfm*
- *Energy Education & Workforce Development: http://www1.eere.energy.gov/education/lessonplans/default.aspx*

III. Integrate Environmental Literacy into the Existing Curriculum

Using the school as a hands-on laboratory and integrating environmental education activities into science, math, civics and government, engineering and technology, language arts, art, and elective courses provides abundant opportunity for real world problem solving and instruction on the benefits of the SCHOOL/DISTRICT's sustainable building. The following section describes five (5) key elements in the School as a Tool program, each followed by examples of how the SCHOOL/DISTRICT may integrate them into the curriculum.

- Integrate environmental and sustainability concepts throughout the curriculum. Examples include:
  - creating environmental education units and lesson plans aligned to state and national standards (i.e. Common Core State Standards, Grade Level Expectations/Grade Span Expectations, etc.).
  - using sustainability and the environment as a context for learning science, technology, engineering and mathematics thinking skills and content knowledge.
  - establishing opportunities for interdisciplinary learning about the key relationships between environmental, energy and human systems.
  - allowing students to undertake study of environmental and sustainability themes such as energy, water, forest, pollution, and waste.
  - providing real-world contexts and relevant issues by using the facility as a teaching tool for indoor environmental quality, energy efficiency, renewable energy, and more.
  - involving the entire school in initiatives such as saving water, recycling, and saving energy.
  - using sustainability and the environment as a context for learning green technologies and career pathways.
  - offering environmental science courses.
- Integrate environmental literacy into student exhibitions, portfolios, and course assessments. Examples include:
  - incorporating environmental and sustainability concepts into classroom based and school wide assessments.
  - allowing students' civic and community engagement projects to focus on environmental and sustainability topics.
  - creating an environmental or sustainability literacy graduation requirement.
- Provide and/or promote professional development opportunities in environmental and sustainability education for all teachers.
- Promote outdoor education and time spent in nature. Examples include:
  - using the school yard, parks, and/or field trips to engage students in meaningful outdoor learning experiences at every grade level.
  - using outdoor settings to teach an array of subjects in contexts, engage the broader community, and develop civic skills.
- Increase alignment to North American Association for Environmental Education's (NAAEE) Guidelines for Learning.

Resources for integrating environmental literacy into the existing curriculum:

- *RI Environmental Literacy Plan: http://rieea.org/images/stories/RI/documents/ri_elp_plan_2011.pdf (NEEDS TO BE UPDATED)*
- *NAAEE's Guidelines for Learning: http://eelinked.naaee.net/n/guidelines/topics/Excellence-in-EE-Guidelines-for-Learning-K-12*
- *Green Ribbon Schools: http://www2.ed.gov/programs/green-ribbon-schools/index.html*
- *Green Strides Resources: http://www2.ed.gov/about/inits/ed/green-strides/resources.html*
- *PLT Green Schools! Program: http://www.plt.org/about-project-learning-tree-greenschools-program*
- *Green Education Foundation: http://www.greeneducationfoundation.org/*

IV. Inform and Involve the Community

The SCHOOL/DISTRICT will facilitate communication about the School as a Tool program within and outside of the whole school community. Such activities can include:

- partnering with external organizations to implement the School as a Tool program.
- operating an information kiosk in the community where information pertaining to the School as a Tool program is regularly updated.
- developing a website/webpage to update the community on the School as a Tool program.
- organizing a semi-annual or annual event to showcase the ways in which students are involved in the School as a Tool program.
- conducting educational workshops for school personnel, parents, students, and/or community members.

Resources for informing and involving the community:

- *RI Environmental Education Association: http://rieea.org/*
- *Sustainable Schools Network: http://www.apeiron.org/new/education/rissn.php*
- *Earth Day Network: http://edu.earthday.org/*

V. Monitor and Evaluate Progress

By gathering and analyzing information and data initiated through the School as a Tool program, the SCHOOL/DISTRICT will be able to measure progress, inform future decisions, and even promote the program when applying for recognition or funding. Such activities can include:

- conducting an annual school survey of teachers, students, parents, and other project partners.
- facilitating an annual meeting or seminar to obtain feedback from project partners.

Resources for monitoring and evaluating progress:

- *Educational Survey Templates: http://www.surveymonkey.com/mp/education-survey-templates/*
- *School Survey Templates: http://www.websurveymaster.com/1-School-Survey-templates-*

VI. Apply to the Green Ribbon Schools Program

The SCHOOL/DISTRICT will apply for a Green Ribbon Schools Award, a national program that recognizes schools that save energy, reduce costs, feature environmentally sustainable learning spaces, protect health, foster wellness, and offer environmental education to boost academic achievement and community engagement.

Resources for applying to the Green Ribbon Schools Program:

- *Online Application: http://www.ride.ri.gov/finance/funding/construction/schoolconstruction.aspx*
- *US Department of Education Green Ribbon Schools: http://www2.ed.gov/programs/green-ribbon-schools/index.html*

Timeline

By _____ , the SCHOOL/DISTRICT will submit an environmental vision statement, action plan, roster, and meeting schedule.

By _____ , the SCHOOL/DISTRICT will submit the results from the school environment survey.

By _____ , the SCHOOL/DISTRICT will submit a preliminary proposal for how it will integrate environmental literacy into the curriculum; inform and involve the community; and monitor and evaluate progress.

By _____ , the SCHOOL/DISTRICT will submit a final program description for how it will integrate environmental literacy into the curriculum; inform and involve the community; and monitor and evaluate progress.

By _____ , the SCHOOL/DISTRICT will implement the approved program.

By _____ , the SCHOOL/DISTRICT will apply to the Green Ribbons School program.

In addition, the SCHOOL/DISTRICT will welcome the opportunity to be active participants in sustainable schools opportunities in the future. These activities might include participation in sustainable schools meetings or hosting RIDE-sponsored events such as sustainable schools meetings.

_____ _____

Signature of SCHOOL/DISTRICT authorized representative Date

_____

Print name of SCHOOL/DISTRICT authorized representative

_____

Title of SCHOOL/DISTRICT authorized representative

_____

SCHOOL/DISTRICT

7: CAPITAL IMPROVEMENT PLAN

INCLUSIONS:

- Summary of Capital Improvement Plan

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Capital Improvement Plan

The 5 year capital improvement plan is included within the Facilities Condition Assessment Report, included within Section 8.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

8: FACILITIES ANALYSIS

INCLUSIONS:

- Updated Facilities Conditions Assessment
- Jacobs Report (included for reference only)
- Floor Plans

EXECUTIVE SUMMARY

The Bristol Warren Regional School Department enlisted the services of Colliers Project Leaders to assess and create a Facilities Conditions Assessment Report on all schools throughout the district. This report has an extensive assessment of each of the six school's facilities, seven buildings in total within the district. These facilities include Mt. Hope High School, Kickemuit Middle School, Colt / Andrews Elementary School, Guiteras Elementary School, Hugh Cole Elementary School, & Rockwell Elementary School. This reports findings show that though strong efforts of yearly maintenance programs of the district's facilities have occurred, and the majority of buildings in the districts are in fair to good shape, that some facilities within the district have aged into a need for major renovations, repair, or possible replacement. Throughout this report there are detailed findings of deficiencies that require either immediate, soon, or deferred maintenance attention and are listed as such. This report also assigns an estimated construction value to each maintenance item found throughout the schools. The major findings in this report shows that the facility in need of the most maintenance is Mt. Hope High School, which accounts for $18 Million out of the total $28.6 Million in repairs found.

Assessment Methodology

Facilities inspections were conducted in the Summer of 2022 by Colliers professional architects, engineers, and project managers experienced in the conduct of similar assessments at educational institutions throughout the country. These inspectors identified maintenance repair needs associated with the Bristol Warren schools. In order to ensure that the issues list is comprehensive and appropriately reflects the relative levels of urgency, the inspection also included discussions with the School Department's Director of Facilities and a full review of the detailed findings.

Assessment Findings

In total, the Colliers inspection team identified approximitly 134 individual projects related to deferred maintenance and repair needs across six schools. The deferred maintenance needs identified in the schools through the Facilities Conditons Assessment total 28.6M. Each project was assigned a priority based upon its relative urgency of need. Of the total Need, 19.2M is considered high priority.

Table 1: Summary of Identified Deferred Maintenance Needs ($ in Millions)

	TOTAL NEED	% OF TOTAL
Priority 1 (High Priority)	$19.2	67.1%
Priority 2 (Important Needs)	$7.8	27.3%
Priority 3 (Deferrable)	$1.6	5.6%
Total Facilities Needs	$28.6	100.0%

Overall, the schools are clean and well maintained; however, there are several issues facing the School Department now and into the future.

- HVAC systems in several schools are aged and obsolete. Preventive maintenance programs have maintained equipment beyond expected life cycles, but the time has come to schedule replacements due to rising repair costs and availability of highly efficient equipment.
- Roofs in several schools have aged beyond there useful life and are in need of replacement.
- Interior finishes, including flooring, ceilings, casework, and doors, are becoming worn in several schools. These interior spaces are due for a refresh.
- Toilet rooms across the district are tired and outdated. The majority of the toilet rooms are due for a refresh.
- Renovation of the high school locker rooms is a significant project. The locker rooms are in poor condition and are over-sized and inefficient for current usage.

- Information Technology Systems throughout the district are in need of replacement to update multiple aspects of the system including but not limited to servers, UPS's, Interactive Displays, Intercom Systems, Digital Signage, security cameras, & Network System Upgrades are in need of replacement.
- Electrical in multiple schools needs upgrades to keep up with current power demand, systems are old and at end of life, the few generators that the district has are in poor to almost unusable condition and are in need of replacement.
- The reoccurring flooding at Mt. Hope High School is an ongoing issue that needs significant work to be addressed.

ASSESSMENT METHODOLOGY

Inspection Process

The physical inspection of the Bristol Warren Regional schools was conducted in the Summer of 2022 by a team of architects, engineers, and project managers from Colliers Project Leaders, who focused on the identification of maintenance needs associated with the schools. The inspection resulted in the identification of a multitude of specific projects related to the exterior structure, interior finishes, HVAC and other mechanical systems, electrical and plumbing systems, site, safety and regulatory requirements.

Assessment Criteria

To ensure comprehensiveness and consistency during the assessment process, several criteria were adopted at the outset. These criteria outlined specifically what information would be included within the Conditions Assessment, how it would be described and categorized within the report, and the method for estimating project costs and prioritizing needs. The following sections describe in detail the criteria utilized for the conduct of the Facilities Conditions Assessment.

1. Facilities Conditions Assessment Project Identification

The Facilities Conditions Assessment process focused on the identification of maintenance needs in eight (8) key areas as described below:

Exterior Shell – these projects include roofs, structural walls, windows, exterior doors, etc.;

Interior Shell – these projects include flooring, walls, ceilings, casework, interior doors, etc.;

HVAC – these projects examine building mechanical systems including boilers, HVAC

systems, distribution systems, temperature control systems, and bathroom exhaust systems;

Electrical – these projects include building electrical service, panels, wiring, lighting, and outlets;

Plumbing – these projects include water service, sanitary and waste piping, sinks, toilets, and water heaters;

Grounds – these projects include athletic fields, courts, parking lots, walks and drives, landscaping, and other outdoor areas;

Safety & Regulatory Compliance – these projects include fire alarms, smoke & heat detection, sprinklers, fire separation, etc.;

2. Project Cost Estimation Methodology

Each identified project was assigned an estimated project cost based upon current 2023 market conditions. Estimated project costs are inclusive of all material, labor, design, and administrative expenses which may be associated with its undertaking. Although the Bristol Warren Regional School Department may ultimately choose to undertake some of the identified projects with internal staffing, the overall project costs to BWRSD will likely be similar to those identified. The components of each project's cost are illustrated below:



3. Definition of Priorities

Each identified project was also assigned a priority based upon its relative urgency of need. Three priorities were utilized for this study as defined on the following page:

Priority 1: High Priority

Priority 1 projects address issues of asset protection, quality of space, physical environments, or regulatory concern. Priority 1 projects should be addressed in the next 1-2 years.

Priority 2: Important

Priority 2 projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly. Priority 2 projects should be addressed in the next 3-5 years.

Priority 3: Deferrable

Priority 3 projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date. Priority 3 projects should be addressed in the next 5-10 years and beyond.

4. Definition of RIDE Priority Levels

The Rhode Island Department of Education (RIDE) established five (5) priority levels for building assessments in the Jacobs LEA Condition & Energy Data Review published in 2017. Each identified project was also assigned a RIDE priority level based upon the following Jacobs Report definitions:

RIDE Priority Level 1 – Mission Critical Concerns

Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

RIDE Priority Level 2: Indirect Impact to Educational Mission

Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

RIDE Priority Level 3: Short-Term Conditions

Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

RIDE Priority Level 4 – Long-Term Requirements

Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

RIDE Priority Level 5 – Enhancements

Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, re- carpeting, improved signage, or other improvements to the facility environment. These items may be optional but are generally included under a comprehensive renovation project plan.

ASSESSMENT FINDINGS

Building Repair Needs

The Colliers inspection teams identified almost 134 individual projects related to maintenance repair and regulatory issues across BWRSD's Six (6) school facilities, Seven (7) total buildings separating Colt and Andrews buildings. The identified cost for the repair of these deferred maintenance projects is estimated to be $28.6 million. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $19.2 million has been deemed Priority 1.

Table 2: Summary of Deferred Maintenance Needs ($ in Millions)

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$19.2**	**67.1%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$7.8**	**27.3%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$1.6**	**5.6%**
Total Facilities Needs	**$28.6**	**100.0%**

The individual needs identified in this assessment were categorized within major Maintenance Systems depicted on the following page in *Exhibit I: Profile of Deferred Maintenance Needs by Maintenance System*. This exhibit provides a graphic illustration of the total and priority needs identified across each of the eight (8) major maintenance categories utilized.

INDIVIDUAL BULIDING SUMMARIES

Mt Hope High School, Bristol, RI



The Colliers inspection team identified twenty-seven (27) individual projects related to maintenance repair and regulatory issues across Mt. Hope High School. The identified cost for the repair of these deficiencies is estimated to be $18 million. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $13.2 million has been deemed High Priority. The distribution of total need across all priorities can be summarized as follows in Table 3.

Table 3: Summary of Identified Needs by Priority ($ in Millions): Mt. Hope High School

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$13.2M**	**73.2%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$4.1M**	**23.1%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$671K**	**3.7%**
Total Facilities Needs	**$18.0**	**100.0%**

Inspection Summary – Mt. Hope High School houses grades 9-12, was built in 1965, and is comprised of a primarily 1 story approximately 177,732 GSF building built in sections from different additions connected by corridors, with one 2 story area that houses classrooms and the library.

Exterior Shell

- The existing roof is comprised of a mainly TPO low sloped roof membrane, with some areas of asphalt shingles. The majority TPO roof is approximately +/- 15-20 years old, roof is at the end of its life and in need of replacement. Roof edge metal is at the end of its life, shows major signs of rot and is pealing away from roof edge in multiple locations. Asphalt shingle locations are in poor to ok condition.

- Moisture issue underneath membrane system, multiple leaks found throughout roof.
- No roof insulation present, this presents significant thermal issues.
- Staining is present on the roof membrane, typical throughout most of roof.
- The exterior envelope is mainly comprised of painted Concrete Masonry Unit Blocks. The CMU is stained, spalling, and cracking in many areas, with come chunks of blocks missing, and vertical cracking present along multiple mortar joints. 4”-5” holes are present in some locations and there is cracking and gaps surrounding piping penetrations, creating areas insect, vermin, air, and moisture penetration into the building. It is assumed the majority of CMU walls are not insulated.
- Wooden trim, soffit panels and overhangs are showing significant wear and deterioration, and paint is cracking/failing in many locations.
- Vertical sealant joints are failing many locations throughout.
- Vertical board and batten style wood exterior is in poor condition, is peeling away and in some locations is completely missing, exposing vertical joints between boards.
- The fenestration was replaced building-wide with double paned aluminum units within the last 5 years. No other envelope updates were a part of the fenestration replacement.
- 32”x16” wooden louvered openings are present throughout the envelope. Protective screens are damaged or missing in many cases. Louvers are damaged or missing. Some openings have evidence of animal nesting. Wood is damaged and rotting in most areas.
- Moisture staining and mildew is visible in many areas along exterior walls, overhangs, and roof.
- Water infiltration is an ongoing issue at windowsills. Interior side sill rotting is evident in multiple locations. The school has recently had to replace some areas.

Interior Shell

- The building has had some ADA upgrades to drinking fountains and some bathrooms.
- The building contains outdated and worn finishes in a large number of small bathrooms. Some bathrooms have been converted to storage.
- The wall and floor finishes of all bathrooms are extremely worn, stained, and dated, in some areas large chunks of floor & wall tile is missing.
- Lockers are reportedly seldom used, and significant damage noticed in multiple locker areas.
- Assembly exits have been equipped with panic hardware.
- Hallway and classroom floor are generally in good condition with some cracking evident in few areas.
- The majority of the building’s ceilings are painted wood beam and plank. ACT exists in a few areas.
- The Lockers Rooms are oversized. There is some floor tile damage evident.
- Asbestos has been mostly abated per Facilities Director, See AHERA Reports.

- Reported flooding inside the school happens during heavy rainfall events, primarily at building connector hallways along river route which runs between buildings.

HVAC

- There are multiple air handling units (AHUs) located on the roof that provide fresh air, heating, and in some cases cooling to the building. The units are:
    - 2 units (Cafeteria)- gas-fired, DX cooling Trane units (400 MBH heat, no cooling data), 18 years old. R-22 refrigerant, which is being phased out. Unit should be replaced.
    - 1 unit (Band Rm) – gas fired, DX cooling Bryant units (180 MBH heat, 1 stage cooling), new. R-410 refrigerant.
    - 1 unit (A bldg., Offices) - gas-fired, DX cooling Trane unit (no data), 18 years old. Most likely R-22 refrigerant, which is being phased out. Unit should be replaced.
    - 2 units (Auditorium)- gas-fired, DX cooling Trane units (400 MBH heat, no cooling data), 18 years old. R-22 refrigerant, which is being phased out. Unit should be replaced.
    - 1 unit (Small Weightlifting Gym) – Split system AHU- AHU hung near ceiling indoors, condensing unit outdoors. Gas-fired, DX cooling Daikin unit (no heat data, 2 stage cooling), <2 years old. R-410 refrigerant. (Labeled AHU#5)
    - 2 units (Gym)- gas-fired, DX cooling Daikin units (no heating, no cooling data), <2 years old. R-410A refrigerant. (Labeled RTU-1, -2)
- *Boilers & Pumps* – There are three high-efficiency gas-fired 4000 MBH Viessman boilers that provide hot water to the heating units in the school. There are inline primary pumps for the boilers and two secondary distribution pumps. Then, each building in the sprawling campus has a set (2) of tertiary pumps with VFDs to help push the water through each building, to classroom unit ventilators and supplemental cabinet unit heaters. The boilers were off, so the pumps should be off, but some were running. In G building, one pump was on. In F building, both pumps were on and hot to the touch. The HW system is less than 5 years old and in good condition. No updates are required at this time.
- *Ventilation* – Exhaust fans are an integral part of the ventilation system for the school. Less than half of the fans are running.
- *Classrooms* – The classrooms are served by unit ventilators that provide heating and fresh air. There is no cooling in the building, except by some of the AHUs. These units are original to the building. Many are not functioning correctly. When the district regionalized, classrooms were added that have newer unit ventilators.
- *Offices* – The administrative offices are served by an AHU unit that provides heating, cooling, and fresh air.
- *"M" Building* – In this building there are 2 additional split-system cooling units. One unit serves M101. This is an interior zone space. There is no fresh air, which is required by code.
- *Specialty Equipment* – The original dust collector system which serves the shop area does

not seem to be functional. There are smaller, portable dust collectors being used. Further discussion with the teachers is needed to see if these units are meeting their needs.

Electrical

- The electrical room is in the boiler room in the lower level. The switchboard and electrical panels are >30 years old and past their useful lives. Replacement parts are difficult to find, if available at all. The building lighting was upgraded to LEDs within the last 5 years.
- IT intercom systems throughout the building have issue and are in need of replacement.

Grounds

- Baseball/softball field was recently updated ($3.5M) Includes perimeter fencing, backstop, infields and dugouts.
- Existing Football Field/Track in fair condition.
- Bleachers are functional, but dirty/mildewy.
- The press box sits on top of the bleachers, its exterior shell made of plywood is very aged and falling apart, weather has worn and damaged most areas, and the press box is not fit for use. the roof of the press box leaks, and there are holes in the wall and areas of completely missing siding.
- The existing track is in fair condition, the lane painting is fairly worn.
- Tennis Courts are in fair condition.
- Soccer Fields and Alternate Football Field are in fair condition.
- The existing parking areas are aged. The asphalt is worn, cracking in many areas. The striping is faded.
- There is significant settlement at existing front entrance pavers. Some areas exhibit lippage in excess of ¼", an ADA noncompliance issue. There is an existing trench drain with a damaged cover, creating additional tripping hazards.
- Exterior concrete bench seating is showing cracks/spalling, with sharp corners.

Safety & Regulatory Compliance

- As a result of the building being comprised of multiple sections, its exterior perimeter presents numerous facades, corners, and angles, therefore limiting clear site lines. The exterior features large quantities of glazing at entrances, fenestration, and at the connecting corridors.
- Exterior surveillance cameras only observed in a few locations around building.

The Facilities Conditions Assessment is a technical assessment of deferred maintenance needs across the various building components of Mt. Hope High School. The individual needs identified in this assessment were categorized within eight (8) major building maintenance systems as summarized below.

Exterior Shell

Exterior projects total $9,698,524 of repair and include:

- Removal and replacement of existing TPO roof membrane (20 years old +/-) including installation of roofing insulation.
  - $4,458,111 – Priority Level High
- Install new window caulking and flashing around window perimeters to address water infiltration.
  - $177,732 – Priority Level High
- Removal of existing deteriorated caulking, and installation of new caulking in horizontal and vertical exterior joints.
  - $88,866 – Priority Level High
- Repair 4-5” holes present in various locations and repairing spalled/cracking masonry block presenting gaps surrounding piping penetrations that provide areas for insect, vermin, air, and moisture penetration.
  - $20,000 – Priority Level High
- Repairing spalled/cracking masonry block, repointing CMU.
  - $2,221,650 – Priority Level High
- Cleaning and washing of mildew-stained wall, painting of exterior masonry walls.
  - $222,165 – Priority Level High
- Repairing and painting wooden panels, trim, bases, soffit panels and overhangs that are showing significant wear and paint is cracking/failing in many locations.
  - $1,275,000 – Priority Level High
- Addressing ground water infiltration at glazed connecting corridors.
  - $1,230,000 – Priority Level High
- Replacement of existing 32”x16” wooden louvered openings and screens throughout the envelope.
  - $65,000 – Priority Level High

Interior Shell

Interior shell projects total $3,826,900 of repair and include:

- Refinishing of all bathrooms throughout the school. All finishes are extremely dated and worn. Removal and replacement of all floor and wall tile, stalls, toilet fixtures, sinks, mirrors, and dispensers.
  - $1,768,000 – Priority Level Medium
- repairs of hallway and classroom flooring cracks as needed.
  - $45,500 – Priority Level Medium
- repaint wooden ceiling beams and planks.
  - $50,000 – Priority Level Medium
- Remove and replace existing dated, oversized, and inefficient lockers rooms.

- $1,216,800 – Priority Level Medium

- Removal of lockers in hallways, touch up paint & patch flooring.
  - $73,600 – Priority Level Low
- Replacement of lockers
  - $598,000 – Priority Level Low
- Shop specialty equipment dust collection system replacement
  - $75,000 – Priority Level Medium

HVAC

HVAC projects total $8,886,600 of repair and include:

- Replacement of Buildings HVAC systems
  - $8,886,600 – Priority Level High

Electrical

Electrical projects total $2,855,080 of repair and include:

- Existing electrical switchboard and electrical panel are greater than 30 years old and past their useful lives Replace electrical Switchboard and Panel, and associated low voltage electrical.
  - $2,132,784 – Priority Level High
- IT Intercom System replacement throughout school
  - $323,472 – Priority Level High
- Replace Projectors with Interactive Displays for 21st century technology.
  - $150,000 – Priority Level Medium
- Install Security Cameras along the exterior perimeter of the building for security.
  - $248,824 – Priority Level Medium

Plumbing

Plumbing projects total $0 of repair and include:

- Included within other sections of work.

Grounds

Plumbing projects total $750,000 of repair and include:

- Repaving concrete walkways.
  - $215,000 – Priority Level Medium
- Filling cracks and seal coating parking lots.
  - $65,000 – Priority Level Medium
- Replacing pavers at entrance area that exhibit significant heaving and breakage (ADA compliance issue), repair/replace concrete bench seating that exhibit cracks/spalling, with sharp corners.
  - $95,000 – Priority Level Medium
- Complete demolition and Replacement of Press Box on bleachers
  - $150,000 – Priority Level High

- Replacement of concession stand
    - $225,000 – Priority Level Medium

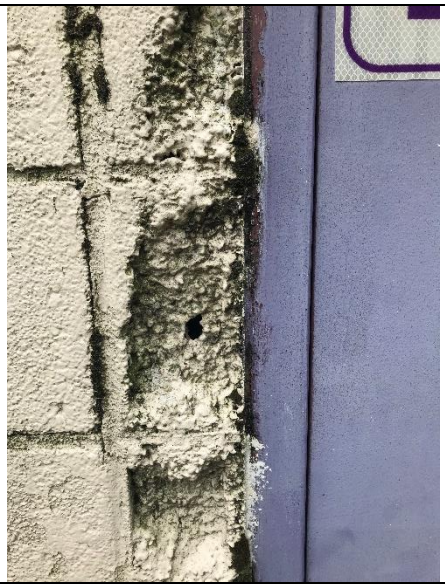
Statutory – No projects were identified.

Accessibility – No projects were identified.

Existing Conditions Photographs

	
Exterior CMU spalling and paint peeling.	Exterior wood siding vertical board and battens coming apart.
	
View of CMU spalling.	Exterior plywood covering existing hole rotting and deteriorated, possible water intrusion. Roof trim worn metal showing evidence of rot.

	
Exterior wood trim rotting.	Exterior door in poor condition.
	
Exterior overhang wood soffit, wood rotting paint peeling.	Exterior wood trim rotting.
	
Missing vertical wood board at exterior panel seams.	Mold and organic growth present on walls.

	
Concrete footing cracking evident at column base.	Oversized hole in wall at pipe penetration.
	
Exterior CMU outer layer spalled off exposing interior concrete fill.	Exterior CMU spalling, chunks of CMU missing. Organic growth on walls.
	
Exterior CMU spalling, chunks of CMU missing. Organic growth on walls.	Exterior CMU spalling, paint peeling off. Roof trim peeling and evidence of rot.

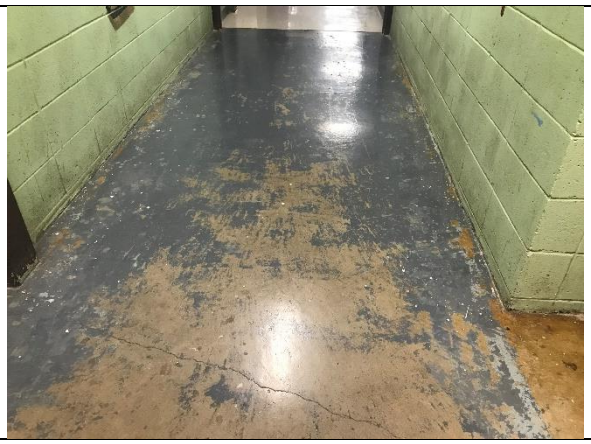
	
Exterior walkway drainage damaged.	Exterior window frame panel peeling away from frame.
	
Holes in wood exterior siding.	Awning over exterior door, wood rotting and deteriorated.

	
Exterior door with immediate step and no landing, not to code.	Exterior sealants and caulking failing at vertical joint.
	
	Water ponding evident at exterior wall and sidewalk.
	

	
Shingle roof in ok to poor condition, mold and organic growth present on shingles, gutters and downspouts damaged.	Exterior wooden louver rotting, roof metal showing signs of rot.
	
Rotting sills evident throughout building envelope.	Old penetration holes in exterior walls exposed.
	
View of roof at end of life, patches have been applied to fix damaged areas	View of roofing and wall flashing at end of life.

	
Drainage pipes shown under connection hallway, flooding present within building when drainage is overrun.	Missing wall base.
	
Damaged lockers in hallways typical in multiple locations.	Damaged wall paint and worn end of life wall and floor tile.
	
Exterior door not to code, step along ramp.	View of aged doors and frames throughout school.

	
Worn bathroom finishes and fixtures.	Worn bathroom finishes and fixtures.
	
Boys locker room damaged / missing floor tile, lockers damaged and end of life.	Organic growth at louver in ceiling.
	
Worn and damaged wall tile finishes and fixtures.	Broken signage, signage throughout building is damaged, worn, or not compliant.

	
Stained tile floor typical in multiple locations.	Worn casework with non-ADA sink.
	
Exterior doors and frames in poor condition.	Cracking in exposed concrete floor.
	
Old unused bathroom being used as storage space.	Damaged hallway locker typical in multiple locations.

	
Bathroom tile damaged and missing, typical throughout bathrooms.	ACT in building worn and in need of replacement.
	
Signage throughout building in need of updating	Dated casework and Non-ADA Sink

	
Damaged bathroom stall	View of wood ceiling in library, finishes worn some signs of water intrusion and staining.
	
View of wood ceiling in library, finishes worn some signs of water intrusion and staining.	Cracked floor tiles at expansion joint.
	
Cracked floor tiles.	Bathroom converted to janitor storage closet.

	
Water leaking at pipes in ceiling, organic growth evident.	Damaged heating unit & Worn tiles in bathroom.
	
Failing caulking joint at window, column rotting out at base, evidence of water intrusion at base of exterior storefront window.	Failing caulking joint at window, column rotting out at base, evidence of water intrusion at base of exterior storefront window.
	
Damaged walk off mat at entry.	Failing caulking joint at window, column rotting out at base, evidence of water intrusion at base of exterior storefront window.

	
Wooden sill rotting due to water damage at base of window.	Water stained ceiling tile.

Kickemuit Middle School, Warren, RI

The Colliers inspection team identified twenty-six (26) individual projects related to maintenance repair and regulatory issues across Kickemuit Middle School. The identified cost for the repair of these deficiencies is estimated to be $3.7 million. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $2.7 million has been deemed High Priority. The distribution of total need across all priorities can be summarized as follows in Table 4.



Table 4: Summary of Identified Needs by Priority ($ in Millions): Kickemuit Middle School

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$2.7M**	**73.7%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$859K**	**23.3%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$112K**	**3.0%**
Total Facilities Needs	**$3.7M**	**100.0%**

Inspection Summary –

Kickemuit Middle school houses grades 6-8, was built in 1958, and is comprised of a 2 story approximately 149,915 GSF building. School is well maintained and clean.

Exterior Shell

- The Roof at the main (original) portion of the building is an EPDM membrane roof. This section appears relatively new and in good condition. Some roof drain covers are missing.
- A section of roof on the southwest corner of the building is a Garland roof system. A custodian recalls that section to have been recently replaced.
- The Addition portion on the building is a ballasted roof system, presumed to be the original from the 1997 addition. Some self-adhered membrane flashing has been installed in multiple roof opening areas, vents and at the Library rotunda appear to have water collecting around its perimeter, and some water damage was evident in the soffits on the interior below the

Rotunda. The staff reported some recurring leaks (Room 220) where significant infiltration occurs during rainfall events. The portion of roof should be replaced.

- Towards the south end of the ballasted roof, there is a brick opening, perhaps an abandoned flue. The mortar joints have eroded, and the brick is detaching from the structure. Water is likely infiltrating through the openings.
- All exterior fenestration appears to have been replaced with double glazed aluminum units. The caulking around some of these units appears aged and worn and will need replacement
- The brick exterior is generally in good condition. A few areas of water infiltration are evident where it appears steel (lintels and columns) are exposed to water and the rust is pushing the brick outwards, causing cracking and spalling. This appeared limited to the original section of the building, specifically observed at roof level and at the northwest wall.
- The 3 entrance porticos appear worn and tired in comparison to the brick façade which is in generally good condition. The porticos feature exposed wood plank ceiling that appears weathered. The paint on the steel structural members is flaking, pealing.
- All The exterior light fixtures appear aged, non-LED, and damaged in some cases.
- The north end of the building features a colonnade. The brick underneath has some mildew staining and in some small areas it is either loose or even completely removed.

Interior Shell

- There is acoustical ceiling tile throughout. The tiles appear aged, sagging, stained and damaged.
- All flooring in the original section of the building is terrazzo. The terrazzo is clean, but aged and some cracking is evident. The color is gray and dull as compared to more colorful contemporary school buildings.
- The newer addition has VCT flooring which appears new, clean and fresher as compared to the terrazzo in the older section.
- There are a few areas where the floor base is damaged or has separated from the wall, but overall is in good condition
- The window sills are a mix of phenolic resin(original building) and laminate(addition)
- The resin sills are aged, scratched or carved into in some cases. The laminate sills are generally in good condition.
- Interior walls are mostly painted CMU. There are some painted brick interior walls and a few plaster finish walls. Walls are generally clean, and the paint is in good shape.
- All restroom and locker facilities have been equipped for ADA accessibility
- The restroom flooring and walls are clean but clearly older. The 1st and second level restrooms in the original building section have been updated with new wainscoting tile, presumably during a plumbing fixture upgrade.
- All interior door hardware has been upgraded. Exit pathway doors have all been equipped with panic hardware.

- Some interior fire doors do not shut properly and should be replaced.

HVAC

- There are multiple air handling units (AHUs) located on the roof that provide fresh air, heating, and in some cases cooling to the building. Four of these units are scheduled to be replaced this summer. The rest of the AHUs have reached the end of their useful lives and should be replaced. The unit summary is:
- #1- 100% outside air, gas-fired Reznor unit (no manufacturer's data), >25 years old
- #2- 100% outside air, gas-fired Reznor unit (no manufacturer's data), >25 years old
- #3- Gas-fired Reznor unit (no manufacturer's data), >25 years old
- #4- 100% outside air, gas-fired Greenheck unit (no manufacturer's data), >25 years old
- #5- Trane AHU with DX cooling coil, supply and return air. Labeled as AHU-1.
- *Ventilation* – Exhaust fans are an integral part of the ventilation system for the school. Less than half of the fans are running.
- *Classrooms* – The HVAC systems in the addition are slightly different, but similar systems. Each of the classrooms has a unit ventilator (UV) with HW coil. These units provide fresh air and heating to the rooms. The classrooms along the back hallway have older UVs, while the science classrooms in the front of the building have newer UVs. The media center is in the back corner of the building. This area is served by three-unit ventilators. There is no cooling in this area, but there seems to be significant heat gain from skylights.
- *Offices* – The administrative offices are served by an AHU unit that provides heating, cooling, and fresh air.
- *Auditorium* – The administrative offices are served by an AHU unit that provides heating, cooling, and fresh air.
- *Additional Cooling Required* – District IT Department – The district's IT department is also located in this school. The area that this department is located in is served by two AHUs- one that is in the data closet and keeps that equipment at the desired temperature, and another AHU that serves the IT office area. There are some window AC units and mini-split AC units serving individual classrooms, that may be required for some students. Also, there is significant warping in the 2x4 ceiling tiles. Whether this is due to general flimsiness of these larger tiles or may indicate humidity control issues, it is hard to tell by sight.

Electrical

- The electrical room is right next to the boiler room in the lower level. The lighting in the room does not work and there is no ventilation, which is required by code. The switchboard and electrical panels are >30 years old and past their useful lives. Replacement parts are difficult to find, if available at all. The building lighting was upgraded to LEDs within the last 5 years.
- This building suffers from intermittent power outages often. There is a generator onsite to ensure power to the IT department main switches for the district. The emergency power

system is scheduled to be replaced this summer. The circuitry should be reviewed, to confirm that all needed systems are on the generator.
- IT intercom systems throughout the building have issue and are in need of replacement.

Plumbing
- There are two gas-fired boilers that provide hot water to the heating units in the school. There is no ventilation in the boiler room, which is required by code. The boilers are dual-fuel, gas and oil, It is believed they are primarily gas supplied. The HW distribution pumps are located in a closet on the first floor. They are off-line.

Grounds
- The existing fields are in fair condition.
- The rubberized track appears to be in fair condition, the striping, arrows and numbering are worn.
- The bleacher system appears to be in good condition
- The concession stand and press box structure are in good condition and feature an accessible access ramp.
- The existing parking lot is aged, worn and exceeded its useful life.
- The Main Building Entrance (Lobby, Main Office) has access curb cuts and ADA ramp that is aged and slightly damaged. Paving's are aged and cracked. Sealant joints between pavers are eroded and given way to weeds.

Safety & Regulatory Compliance
- The school has been equipped with interior and exterior security cameras.
- Entrances are glazed and the (2) entrance areas on the east side of the building are without an area for staff monitoring/check-in, etc. (Camera observation only)

The Facilities Conditions Assessment is a technical assessment of deferred maintenance needs across the various building components of Kickemuit Middle School. The individual needs identified in this assessment were categorized within eight (8) major building maintenance systems as summarized below.

Exterior Shell
Exterior projects total $2,299,283 of repair and include:
- Replace the ballasted roof system on the addition portion (presumed to be the original from the 1997 addition).
  - $1,647,975 – Priority Level High
- Cap and repair what appears to be an abandoned flue where mortar joints have eroded,

and the brick is detaching from the structure.
  - $125,000 – Priority Level High
- Replace aged and worn caulking around window units.
  - $149,915 – Priority Level High
- Replace aged and damaged exterior wall lighting.
  - $30,000 – Priority Level Medium
- Refinish the weathered and flaking wood plank and steel members at the entrance porticos.
  - $65,000 – Priority Level Low
- Replace damaged railings at ramps and stairways.
  - $18,000 – Priority Level Medium
- Brick repointing at horizontal and vertical cracked joints typical at lintels and columns.
  - $187,393 – Priority Level High
- Replace worn aged exterior doors and hardware.
  - $76,000 – Priority Level Medium

Interior Shell

Interior shell projects total $538,372 of repair and include:

- Replace aged and damaged acoustical ceiling tiles.
  - $15,000 – Priority Level Medium
- Replace missing or damage wall base.
  - $5,000 – Priority Level Low
- Replace worn and damaged windows sills (phenolic and laminate)
  - $45,000 – Priority Level Medium
- Clean and repaint interior walls.
  - $224,872 – Priority Level Medium
- Update finishes in selected restrooms.
  - $180,000 – Priority Level Medium
- Repair cracks in terrazzo
  - $42,000 – Priority Level Low
- Replace worn out rug at entry.
  - $10,000 – Priority Level Medium
- Replace floor drain in kitchen.
  - $16,500 – Priority Level Medium

HVAC

HVAC projects total $110,000 of repair and include:

- Replace existing exhaust fans on the roof that are not working & leaking.
  - $45,000 – Priority Level High

- Additional cooling needed for areas within the building that house IT systems.
    - $65,000 – Priority Level High

Electrical

Electrical projects total $377,845 of repair and include:

- Replace existing generator with new generator.
    - $90,000 – Priority Level High
- Electrical panels located next to water pump needs relocation.
    - $15,000 – Priority Level High
- Intercom system throughout building needs full replacement.
    - $272,845 – Priority Level High

Plumbing

Plumbing projects total $60,000 of repair and include:

- Build in exterior exhaust for two gas fired boilers.
    - $60,000 – Priority Level High

Grounds

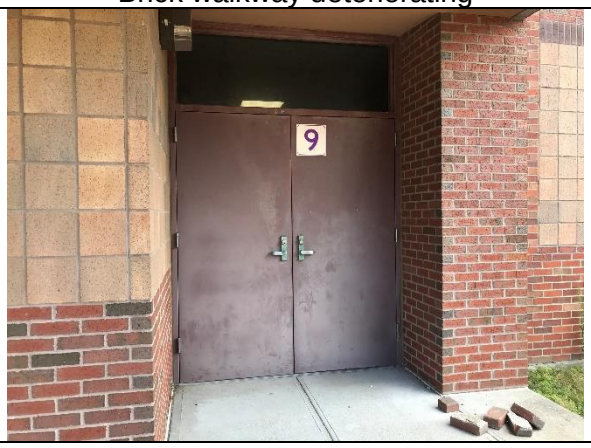
Plumbing projects total $309,360 of repair and include:

- Repaving walkways and brick pavers at main entrance area that exhibit significant heaving and breakage (ADA compliance issue),
    - $65,000 – Priority Level High.
- Replace existing asphalt parking lot.
    - $187,360 – Priority Level Medium
- Replace exterior digital signage.
    - $25,000 – Priority Level Medium
- Repairs to main entry concrete deterioration.
    - $32,000 – Priority Level Medium

Statutory – No projects were identified.

Accessibility – No projects were identified.

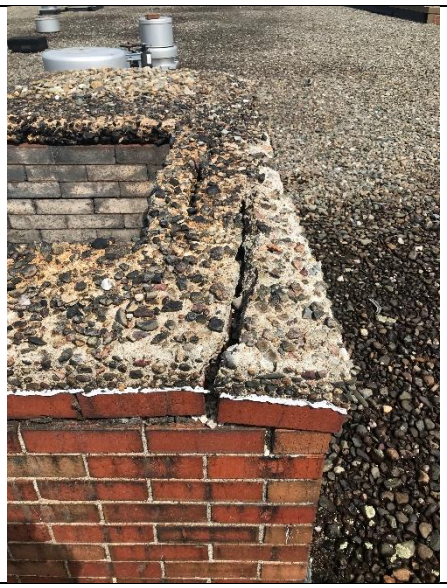
Existing Conditions Photographs

	
Window screen worn in need of replacement.	Exterior digital signage not functioning properly.
	
Brick walkway deteriorating	Brick walkway deteriorating
	
Exterior doors old and worn.	Vertical crack at corner of brick, efflorescence and staining on brick wall.

	
Damaged handrail.	Damaged handrail.
	
Vertical crack in brick wall.	Ponding on roof, drain clogged and above level of water.
	
Vertical crack in brick attempted sealed with caulking.	Ballasted roof rocks pulled away from rooftop exhaust to repair leaks.



Brick chimney in need of repoint.



Brick chimney on roof cracked and falling.



Interior window sill old and worn.



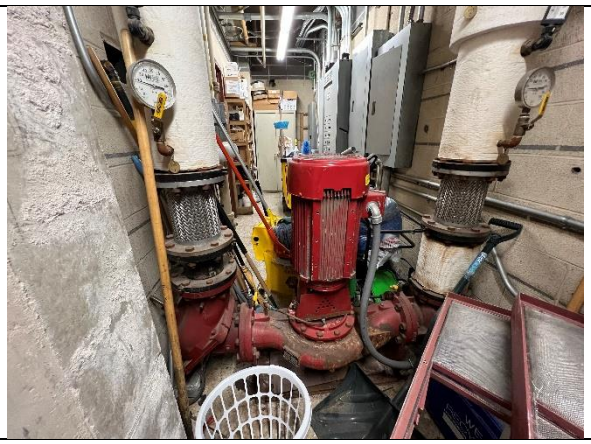
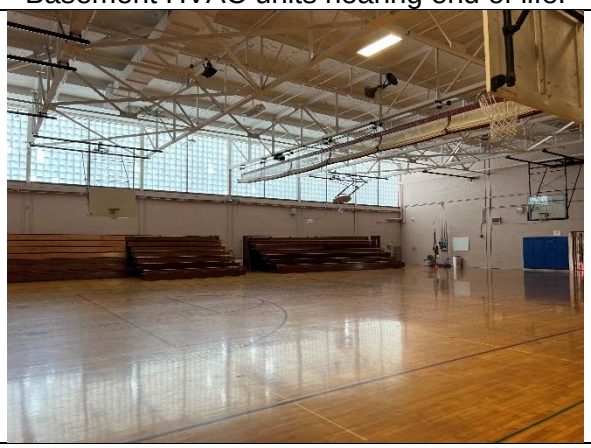
Rotunda in good condition.

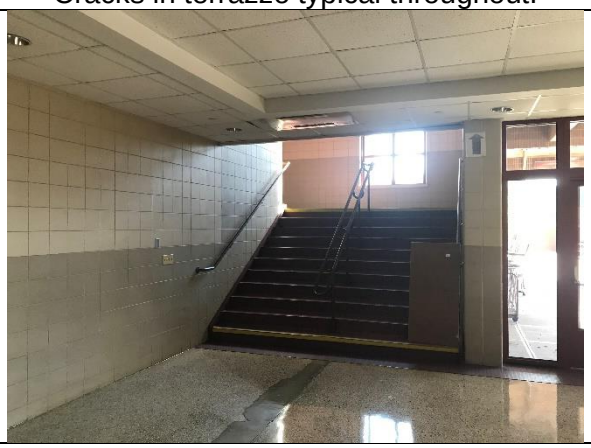


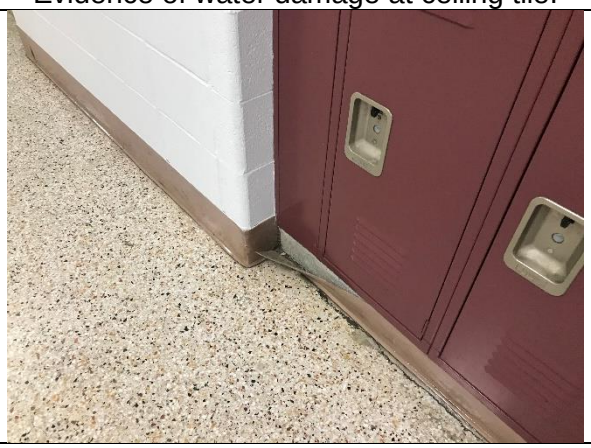
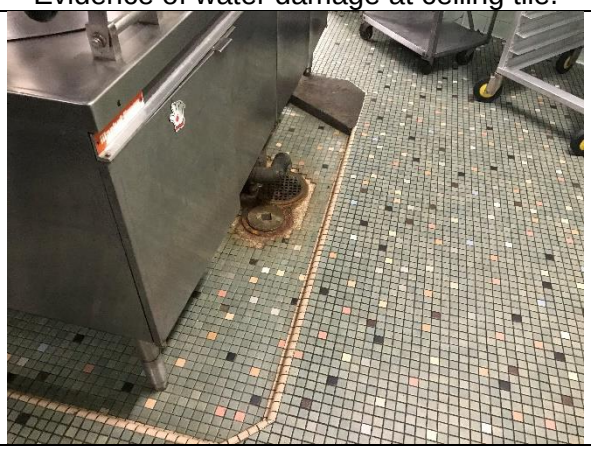
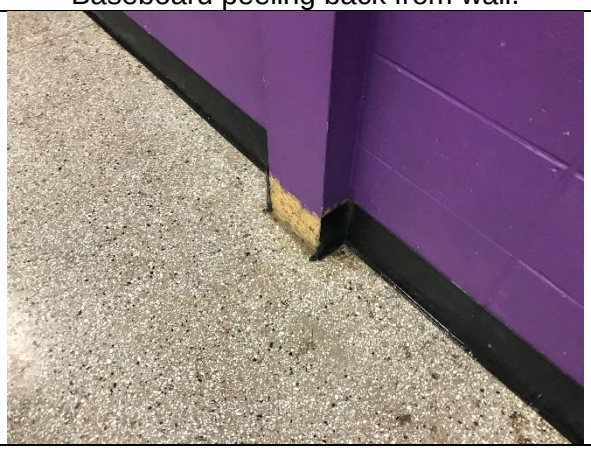
Locker stalls in great condition.

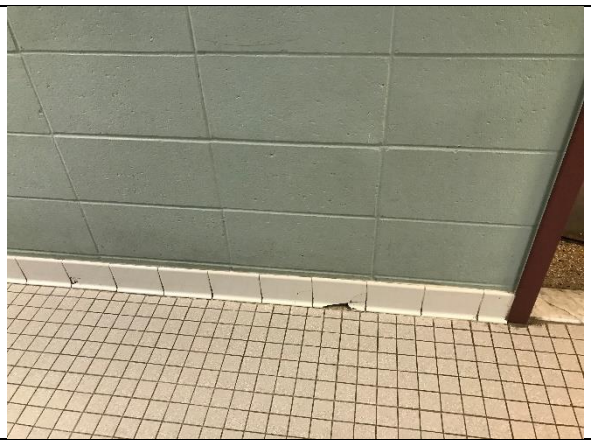


Ceiling tiles are bowed and bending nearing end of life.

	
Basement HVAC units nearing end of life.	Electrical panels adjacent to water pumps.
	
Gymnasium in good condition, ceiling showing signs of water intrusion.	Water damage at soffit.
	
Water damage at ACT.	Water damage at ACT

	
Hallway finishes in good condition.	Cracks in terrazzo typical throughout.
	
Cracks in terrazzo typical throughout.	Cracks in terrazzo typical throughout.
	
Damaged window sill.	Evidence of water condensation dripping from sprinkler piping.

	
Old worn carpet at entry.	Evidence of water damage at ceiling tile.
	
Evidence of water damage at ceiling tile.	Baseboard peeling back from wall.
	
Floor drain rotting out at end of life.	Missing wall base.

	
Exterior exposed wood panel ceiling showing signs of water and organic growth.	Broken tile at bathroom base.

Rockwell Elementary School, Bristol, RI



The Colliers inspection team identified fourteen (14) individual projects related to maintenance repair and regulatory issues across Rockwell Elementary School. The identified cost for the repair of these deficiencies is estimated to be $1.2 million. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $129 thousand has been deemed High Priority. The distribution of total need across all priorities can be summarized as follows in Table 5.

Table 5: Summary of Identified Needs by Priority ($ in Millions): Rockwell Elementary School

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$129K**	**10.8%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$538K**	**45.1%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$526K**	**44.1%**
Total Facilities Needs	**$1.2M**	**100.0%**

Inspection Summary – Rockwell Elementary School houses grades K-5, was built in 1951, and is comprised of a 1 story approximately 29,200 GSF building. School is well maintained and clean.

Exterior Shell

- Original building is brick exterior, asphalt shingle roof with a cupola (appears to have been rebuilt) Walls are assumed to be load bearing brick and interior walls are plaster. Addition has a brick exterior with an asphalt shingle mansard roof and a flat, membrane covered main roof (replaced within the last 2-3 years)
- Walls - Facilities has had difficulty keeping brick façade clean. Mildew staining is evident near the ground in many areas around the perimeter. Staining running from the ends of windowsill

is evident at most windows. Maintenance reports attempts to clean with muriatic acid without success. Brick Mortar has chipped away in some areas and is in need of repointing.

- Windows – have been recently replaced with double-glazed vinyl windows. The units themselves appear to be in fair condition. There was no leakage or condensation evident between the panes. The exterior perimeter caulking joints at the windows are clearly aged, cracking and will need replacement. There are screens in many windows. The rear/west side faces the school playground. Recess activities have caused damage to most of the window screens on the west wall.
- *Roof (Asphalt + EPDM)* – Facilities reported that there were ongoing leaking issues that have been mitigated by a new membrane roof installation (within last 2+/- years). The asphalt section of the roof appears aged (10+) years. Exterior wood trim around the building is worn and the paint is chipping. Wood soffits are heavily stained with mildew in many areas. Several downspouts are dented/damaged – particularly on the west side of the building.
- Doors - The exterior doors are aged. Rusting is evident at the base of doors, thresholds, and jambs. Warpage is preventing multiple doors from opening and closing properly (1) in particular was noted as a serious safety concern (Northwest/original building) as it is not operable by children in the event of an emergency.

Interior Shell

- ACT throughout except for the cafeteria. is The cafeteria ceiling is in fair condition.
- The addition portion of the building is entirely CMU walls. Walls appear to have not been painted in some time. Staining and tape residue is evident throughout the building.
- Ceramic tile is in the restroom walls.
- The existing building has plaster interior walls. They generally appear to be more recently painted and cleaner that the CMU in the other section.
- Flooring is VCT throughout with the exception of carpet in the Media Center. The VCT is kept cleaned and maintained but reaching end of its life. Refinishing process causes movement and removal of adhesive in select areas which will continue to occur until system is replaced.
- The folding/retractable cafeteria tables system is aged and worn, causing issues with use. A long term replacement should be considered.

HVAC

- This school's MEP systems are in fair condition overall. Adding VFDs to the pumps and changing out the air handling units' three-way valves would provide cost savings to the schools. Further investigation is required to determine if the smaller air handling units have a fresh air intake, which is code required. Restrooms are dated and could be refurbished.
- *Ventilation* – Exhaust fans are an integral part of the ventilation system for the school. Some of the fans were not running.
- *Classrooms* – The classrooms are served by unit ventilators that provide heating and fresh

air.

- *Offices* – The Nurse & Central Office area are served by an air handling unit (AHU) with a HW coil above the ceiling of the space. It could not be determined if there was fresh air to this unit, which is required by code.
- *Reading / Meeting Room* – This room is served by an AHU located above the ceiling that provides heating and fresh air. The heating coil has a 3-way heating valve above the ceiling. It could not be determined if there was fresh air to this unit, which is required by code.
- *Library* – The library is served by a unit ventilator which provides heating and fresh air. There is also a spot-cooler in the space that provides some cooling. Although a unit ventilator provides fresh air to the space, if the room has more than 20 people in it (typical classroom), the amount of fresh is inadequate for larger groups.
- *Kitchen* – HV-3 is a heating and ventilation air handling unit located near the ceiling, in a storage closet off the MPR, but serves the kitchen and a couple offices nearby. The heating coil has a 3-way heating valve. It could not be determined if there was fresh air to this unit, which is required by code.
- *The Multipurpose Room (MPR)* – The MPR serves as a cafeteria and a gym. HV-3 is a heating and ventilating air handling unit located in a storage closet near the exterior doors. The heating coil has a 3-way heating valve.
- *Additional Cooling Required* – There are also some spot coolers and mini-split AC units serving individual classrooms, that may be required for some students.

Electrical

- The building is served by an 800A service that seems to be in fairly good condition. The building lighting was upgraded to LEDs within the last 5 years.
- IT intercom systems throughout the building have issue and are in need of replacement.

Plumbing

- There are two gas-fired Weil McLain cast iron boilers that provide hot water to the heating units in the school. There are two primary hot water pumps, and two distribution pumps that move hot water throughout the school/addition. The pumps have on/off starters- no VFDs and most air handling units have 3-way valves. There is HW perimeter baseboard heat in offices/common spaces.
- The building hot water is heated by the boiler though an indirect heating coil in a storage tank. It is < 5 years old.

Grounds

- Parking lot, walkways and railings are aged and worn and will require resurfacing and sealing.

Safety & Regulatory Compliance

- The building has had ADA upgrades in the restrooms (grab bars, dispensers, mirrors, sinks). A ramp with handrails has been installed at a dedicated accessible entrance on the south side of the building. ADA drinking fountains have been installed.
- The building is fully sprinklered.

The Facilities Conditions Assessment is a technical assessment of deferred maintenance needs across the various building components of Rockwell Elementary School. The individual needs identified in this assessment were categorized within eight (8) major building maintenance systems as summarized below.

Exterior Shell

Exterior projects total $629,500 of repair and include:

- Replaced existing exterior doors.
  - $48,500 – Priority Level High
- Install new caulking around window units and replace select damaged screens.
  - $38,000 – Priority Level High
- Wash stained brick.
  - $25,000 – Priority Level Low
- Repaint existing wood trim around the building.
  - $135,000 – Priority Level Medium
- Replace damaged downspouts.
  - $18,000 – Priority Level Medium
- Repointing masonry joints and replacing spalling bricks.
  - $365,000 – Priority Level Low

Interior Shell

Interior shell projects total $481,500 of repair and include:

- Replace aged and damaged acoustical ceiling tile.
  - $168,000 – Priority Level Medium
- Clean and repaint existing CMU interior walls.
  - $36,500 – Priority Level Low
- Replace existing VCT flooring and carpet in select areas.
  - $87,000 – Priority Level Medium
- Replace select casework.
  - $75,000 – Priority Level Low
- Replace existing folding cafeteria tables.
  - $115,000 – Priority Level Medium

HVAC
HVAC projects total $15,000 of repair and include:

- Adding VFD's to pumps and changing out the AHU three-way valves.
  - $15,000 – Priority Level Medium

Electrical
Electrical projects total $42,533 of repair and include:

- Intercom system throughout building needs full replacement.
  - $42,533 – Priority Level High

Plumbing – No projects were identified.

Grounds
Grounds projects total $24,838 of repair and include:

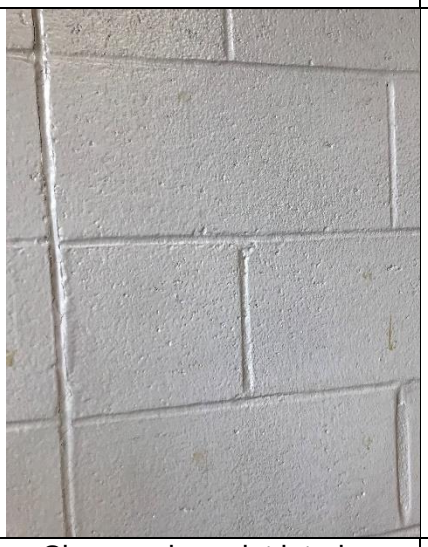
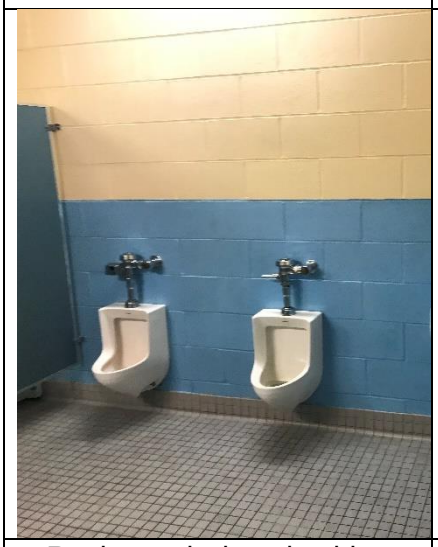
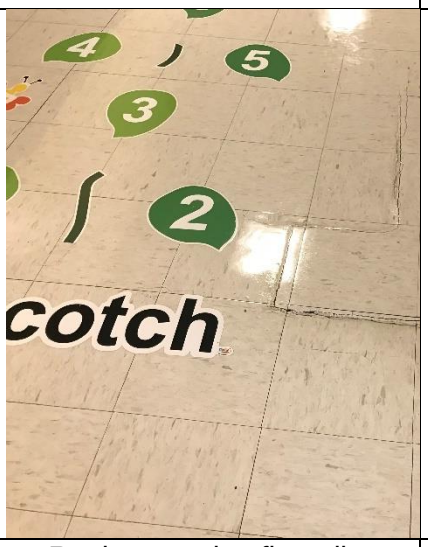
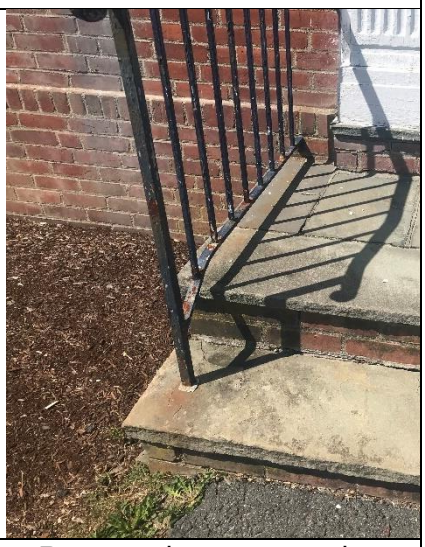
- Repaving Walkways.
  - $16,338 – Priority Level Low
- Seal coating parking lot.
  - $8,500 – Priority Level Low

Statutory – No projects were identified.

Accessibility – No projects were identified.

Existing Conditions Photographs

		
Repair damaged casework	Replace aged and damaged ceiling tiles	Replace rusted/warped exterior doors

		
Repaint exterior wood trim	Clean and repaint interior walls	Clean and repaint exterior brick façade
		
Replace missing plumbing fixtures	Replace againg floor tile system	Reset and secure exterior entrance steps

Guiteras Elementary School, Bristol, RI



The Colliers inspection team identified fifteen (15) individual projects related to maintenance repair and regulatory issues across Guiteras Elementary School. The identified cost for the repair of these deficiencies is estimated to be $1.2 million. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $532 thousand has been deemed High Priority. The distribution of total need across all priorities can be summarized as follows in Table 6.

Table 6: Summary of Identified Needs by Priority ($ in Millions): Guiteras Elementary School

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$532K**	**44%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$438K**	**36.5%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$234K**	**19.5%**
Total Facilities Needs	**$1.2M**	**100.0%**

Inspection Summary – Guiteras Elementary School houses grades K-5, was built in 1921, is a Historic building comprised of a 2 story plus partial basement approximately 38,600 GSF building. School is well maintained and clean. Guiteras has had recent window replacement and façade restorative work done. Roofing replacement is scheduled for summer 2022.

Exterior Shell

- All windows are replacement double paned glass (per historical review)
- Cracking/ spalling is evident at masonry in multiple areas.
- Evidence of rusting columns and lintels appears where brick is displaced/cracking at window heads and some corners
- Masonry staining, cracking and spalling is evident at select areas.

- Vertical and horizontal mortar joints will require replacement in select areas
- Some cracking/peeling paint is evident at wood framed masonry opening – will need to be refinished
- District Facilities reports the roofing system is scheduled for replacement Summer 2022 (Garland built-up system)

Interior Shell

- Water damage at the Gymnasium ceiling is evident in several areas from roof level water infiltration. Will need to be repaired/refinished.
- Gymnasium walls will need repainting (Heavy stained, typical)
- Hard plaster ceilings in the classrooms – Some damage/flaking is evident and will need repair.
- ACT ceilings in the corridors and restrooms. ACT is generally in good condition, but some staining/wear is evident in select areas and will need eventual replacement.
- VCT flooring is cleaned and maintained, but is showing signs of age/ cracking. Will need replacement in the future.
- Restrooms finishes are in fair condition. Will need some future update (Repainting walls, replace worn laminated toilet partitions)
- Door hardware has been updated per code throughout.

HVAC

- This school's MEP systems are in fair-poor condition overall. There is no fresh air being provided in the classrooms. The air handling unit serving the gym should be replaced when the roof is replaced, or soon after. The HW heater was installed in 2010 and is reaching the end of its useful life.
- There are three high-efficiency gas-fired Viessman boilers that provide hot water to the heating units in the school. There are three primary hot water pumps, and two distribution pumps that move hot water throughout the school. There is HW perimeter baseboard heat along the outside walls.
- *Ventilation* – Exhaust fans are an integral part of the ventilation system for the school. Some of the fans were not running.
- *Classrooms* – The classrooms have exhaust and hot water baseboard for heat. There is no fresh air being provided in the classrooms.
- *Library/ Media Center* – The library is served by a large 3-stage (960 MBH output) gas-fired air handling unit, located in the attic space above. The unit provides heating and fresh air to the space
- *Gym* – The gym is served by a gas-fired 400 MBH air handling unit on the roof. The unit is >30 years old and should be replaced.
- *Additional Cooling Required* – There are also some window AC units serving individual classrooms, that may be required for some students.

Electrical

- The building is served by an 800A service that seems to be in fair condition. The building lighting was upgraded to LEDs within the last 5 years.
- IT intercom systems throughout the building have issue and are in need of replacement.

Plumbing

- The HW heater was installed in 2010 and is reaching the end of its useful life Fire Protection

Grounds

- Site has experienced settlement issues, poor soil conditions.
- Groundwater infiltration at the lower level is a recurring issue in storm events.

Safety & Regulatory Compliance

- District has kept up with hazardous materials abatement to date.
- District has kept up with code and accessibility compliance.
- The building is fully sprinklered.

The Facilities Conditions Assessment is a technical assessment of deferred maintenance needs across the various building components of Guiteras Elementary School. The individual needs identified in this assessment were categorized within eight (8) major building maintenance systems as summarized below.

Exterior Shell

Exterior projects total $532,000 of repair and include:

- Repair work to rusting columns and lintels appears where brick is displaced/cracking at window heads and corners.
  - $140,000 – Priority Level Medium
- Repair and clean masonry staining, cracking and spalling evident at select areas.
  - $125,000 – Priority Level Medium
- Replaced vertical and horizontal mortar joints will in select areas.
  - $237,000 – Priority Level High
- Repaint cracking/peeling paint at wood framed masonry openings.
  - $30,000 – Priority Level Medium

Interior Shell -

Interior shell projects total $347,000 of repair and include:

- Repair water damage at the Gymnasium ceiling from roof level water infiltration.
  - $65,000 – Priority Level High

- Repaint Gymnasium walls.
  - $25,000 – Priority Level Medium
- Repair/repaint damage/flaking at hard plaster ceilings at select areas.
  - $38,000 – Priority Level Medium
- Replace select acoustical ceiling tiles in select areas.
  - $15,000 – Priority Level Medium
- Replace existing VCT flooring system.
  - $114,000 – Priority Level Low
- Update select restrooms finishes, including laminated partitions.
  - $90,000 – Priority Level Low

HVAC

HVAC projects total $190,000 of repair and include:

- Replacement of exhaust fans.
  - $40,000 – Priority Level Medium
- Replacement of gym AHU and associated MEP.
  - $150,000 – Priority Level High

Electrical

Electrical projects total $70,252 of repair and include:

- Intercom system throughout building needs full replacement.
  - $70,252 – Priority Level High

Plumbing

Plumbing projects total $25,000 of repair and include:

- Replacement of hot water heater nearing end of life.
  - $25,000 – Priority Level Medium

Grounds

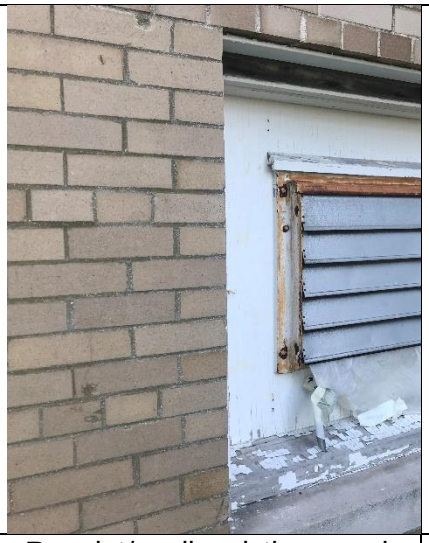
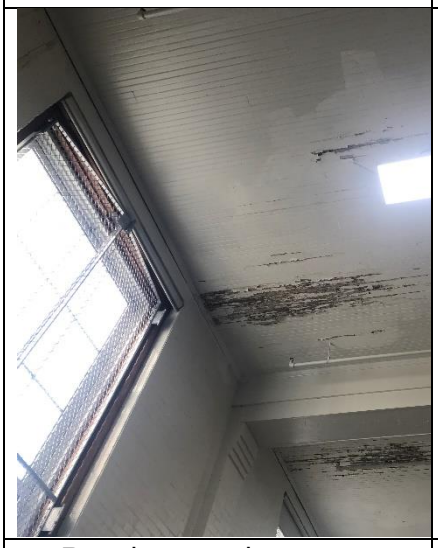
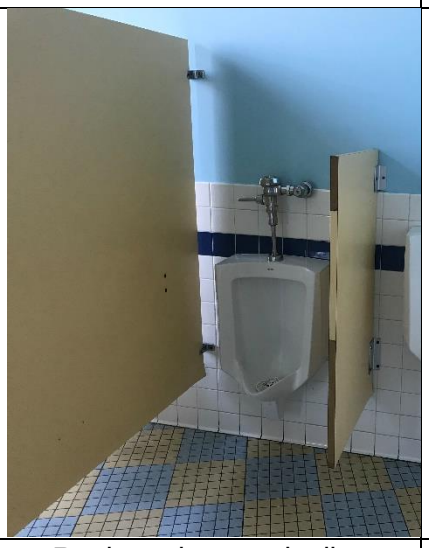
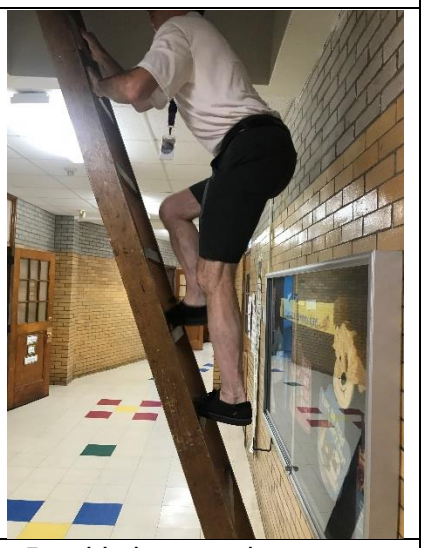
Grounds projects total $130,000 of repair and include:

- Repaving walkways, filling cracks and seal coating parking lots
  - $30,000 – Priority Level Low
- Address groundwater infiltration at the lower level.
  - $100,000 – Priority Level High

Statutory – No projects were identified.

Accessibility – No projects were identified.

Existing Conditions Photographs

		
Replaced vertical and horizontal mortar joints	Repaint/caulk existing wood masonry opening infill	Address rusting lintels causing façade movement
		
Repair water damage at Gynamasium ceiling	Raplace damaged toilet partitions	Provide improved access to attic/mechanical space

Colt Elementary School, Bristol, RI



The Colliers inspection team identified nine (9) individual projects related to maintenance repair and regulatory issues across Colt Elementary School. The identified cost for the repair of these deficiencies is estimated to be $723 thousand. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $295 thousand has been deemed High Priority. The distribution of total need across all priorities can be summarized as follows in Table 6.

Table 6: Summary of Identified Needs by Priority ($ in Millions): Colt Elementary School

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$295K**	**40.8%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$400K**	**55.3%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$28K**	**3.9%**
Total Facilities Needs	**$723K**	**100.0%**

Inspection Summary – Colt Elementary School, along with Andrews Elementary School Building across Bradford St, create the Colt Andrews Elementary School, Colt houses grades 4 & 5, was built in 1906 and is comprised of a 2 story 71,300 GSF building. Colt Elementary School is a Historic building endowed by the Colt Family, and was recently renovated in 2007/2008 to include code and accessibility upgrades. Colt Elementary School features 6 functioning classrooms, with the majority of classrooms for Colt Andrews in the Andrews Building Facility. The building separation creates complications and safety concerns for the School. School is well maintained and clean.

Exterior Shell

- Façade has been restored within the last 10-15 years. Some staining is evident on the marble

façade.

- Windows have been replaced (historic approved) Windows exhibit some paint peeling.
- The terra cotta roof has been restored within the last 5 years
- Exterior doors are in need of rehab. The facilities manager has this work scheduled for the summer of 2022.

Interior Shell

- Building has been well maintained.
- There is plaster damage in the auditorium ceilings and walls due to water infiltration at roof level. Will need to be addressed.
- Some cracking/peeling paint is evident is select areas
- Basement level has ongoing ground water moisture issues.
- Door hardware has been updated.
- Bathroom finishes have been updated and are in good condition.
- ACT is in good/fair condition. Some water staining is evident on select ceiling tiles
- VCT flooring is clean and in good condition throughout

HVAC

- The school utilizes a 2-pipe switchover system to provide heating in the winter and cooling in the summer. The hot/chilled water is distributed throughout the school in a single set of pipes. Because there is chilled water in the pipes seasonally, the pipes condense if there is a gap in the insulation/ it isn't continuous. Over time, the condensation saturates the pipe insulation. This also increase the rate of corrosion of the pipe. On our walkthrough, we noted that there were many places that the insulation was wet and growing mold. Also, there were places where the insulation was not continuous, and condensation was dripping on finished surfaces.
- The school also has issues with groundwater intrusion. Staff is working to pipe the stormwater away from the foundation walls. They are porous, and therefore ruining interior classroom finishes, in the lower level of the school.
- There are two gas-fired cast iron boilers that provide hot water to the heating units in the school. The chiller is manufactured by Trane and is rated for 25 tons of cooling. It most likely utilizes R-22 refrigerant and should either be replaced or at least have the refrigerant replaced. R-22 is in phase-out, meaning that if the chiller loses refrigerant due to a leak, the price for replacement refrigerant will be more expensive, or not available.
- There are two primary hot water pumps, two primary chilled water pumps, and two dual temperature distribution pumps that move hot or chilled water throughout the school. There are VFDs on the secondary pumps.
- *Ventilation* – There is an air handling unit in the attic space with an energy recovery wheel,

which appears to be a dedicated outside air unit providing fresh air to the building. The attic does not appear to be well-ventilated and is very uncomfortable and feels damp. There is mold growing on the pipe insulation. This unit was tagged as AHU-3.

- There are two air handling units in the basement. One air handling unit in the basement with an energy recovery wheel, that appears to maybe be a dedicated outside air unit providing fresh air to maybe the auditorium and/or lower floor spaces in the building. This unit was tagged as AHU-2. Not much information on the other air handling unit, as the day we were there, the basement had standing water in it from a non-functional backflow preventer.
- *Classrooms* – All of the classrooms have heating/ cooling provided by console fan coil units in each classroom. These units have a fan and coil in them. The hot/chilled water distributed to the coils in these units throughout the building, utilizes a 2-pipe changeover system. In the summer, chilled water is produced at the chiller and pumped throughout the building. In the winter, hot water is pumped through the same piping distribution. One issue is that the insulation is not continuous, which can be seen by puddling under pipes. Since there are areas that the insulation is not continuous, over time, the condensation saturates the pipe insulation. This will also increase the rate of corrosion of the pipe. On our walkthrough, it was noted that there were many places that the pipe insulation was wet and growing mold.
- *Offices* – Offices are served with a fan coil unit that provides heating and cooling. Fresh air is provided by the DOAS unit.
- *Library* – The library is served by multiple fan coil units and multiple split-systems due to the roof heat loss/gains. An air handling unit is in the eave space that provides fresh air to the building, also serves this space.

Electrical

- The building is served by a 1200A service that seems to be in fairly good condition. The building lighting was upgraded to LEDs within the last 5 years.
- IT intercom systems throughout the building have issue and are in need of replacement.

Plumbing

- The hot water tank is new- it was installed in 2017.

Grounds

- Bus drop/off pickup has historically been an issue and there has been discussion of closing Bradford St. to thru traffic.

Safety & Regulatory Compliance

Bristol Warren Regional School District
Phase 1 – Facilities Conditions Assessment

The Facilities Conditions Assessment is a technical assessment of deferred maintenance needs across the various building components of Colt Elementary School. The individual needs identified in this assessment were categorized within eight (8) major building maintenance systems as summarized below.

Exterior Shell

Exterior projects total $230,000 of repair and include:

- Rehab the exterior doors and repair/repaint wood windows.
  - $230,000 – Priority Level Medium

Interior Shell

Interior shell projects total $188,000 of repair and include:

- Repair plaster damage in the in the auditorium ceiling and repainting in select areas.
  - $90,000 – Priority Level High
- Repair stained acoustical ceiling tile in select areas
  - $18,000 – Priority Level Low
- Address Basement water issues.
  - $80,000 – Priority Level High

HVAC

HVAC projects total $155,000 of repair and include:

- Replace piping insulation.
  - $125,000 – Priority Level High
- Replace R-22 refrigerant.
  - $20,000 – Priority Level Medium
- Replace non functioning backflow preventer.
  - $10,000 – Priority Level Low

Electrical

Electrical projects total $35,650 of repair and include:

- Intercom system throughout building needs full replacement.
  - $35,650 – Priority Level High

Plumbing – included in HVAC.

Grounds

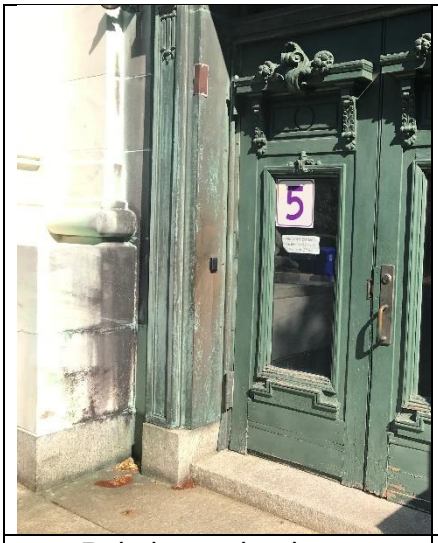
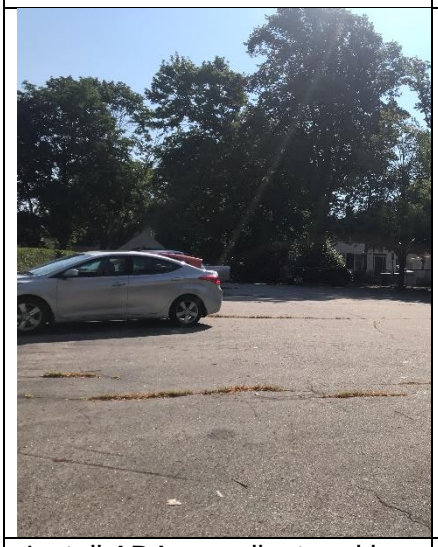
Grounds projects total $150,000 of repair and include:

- Reorganize bus drop off / pickup reconfiguration, possible closure of Bradford St.
  - $150,000 – Priority Level Medium

Statutory – No projects were identified.

Accessibility – No projects were identified.

Existing Conditions Photographs

		
Rehab exterior doors	Repair plaster ceilings at water damaged areas	Repaint select areas
		
Install ADA compliant parking	Repaint existing wood windows	Replace select acoustical ceiling tiles

Andrews Elementary School, Bristol, RI



The Colliers inspection team identified eleven (11) individual projects related to maintenance repair and regulatory issues across Andrews Elementary School. The identified cost for the repair of these deficiencies is estimated to be $470 thousand. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $75 thousand has been deemed High Priority. The distribution of total need across all priorities can be summarized as follows in Table 7.

Table 7: Summary of Identified Needs by Priority: Andrews Elementary School

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$75K**	**16%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$395K**	**84%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$0**	**0%**
Total Facilities Needs	**$435K**	**100.0%**

Inspection Summary – Andrews Elementary School, along with Colt Elementary School Building across Bradford St, create the Colt Andrews Elementary School, Andrews houses K-3, was built in 1936 and is comprised of a 2 story approximately 71,300 GSF building. Andrews Elementary School is a Historic Building located in downtown Bristol, the building has a recent 2007 addition to the facility. Building is well maintained and cleaned.

Exterior Shell

- Brick façade is in good condition. There is some staining, (efflorescence and mildew) are evident at select areas. – Muriatic acid wash would be required for cleaning.
- Exterior wood trim at entrances exhibits paint cracking/flaking – will need to be repainted.
- Windows are historically appropriate double pane replacement. In good condition
- Existing entrances railings are rusted, flaking and peeling. -Will need to be refinished.

- There is some rotting at plywood decking at the flat roof area that will need to be replaced.

Interior Shell

- Building has been well maintained.
- There is some drywall ceiling damage, cracking/peeling of paint evident in select areas.
- All door hardware has been updated to code compliant.
- Bathroom finishes have been updated and are in good condition.
- ACT is in good condition, some staining and warping is evident only in few select areas.
- VCT flooring is clean and in good condition throughout.

HVAC

- The school utilizes a 2-pipe switchover system to provide heating in the winter and cooling in the summer. The hot/chilled water is distributed throughout the school in a single set of pipes. Because there is chilled water in the pipes seasonally, the pipes condense if there is a gap in the insulation/ it isn't continuous. Over time, the condensation saturates the pipe insulation. This also increase the rate of corrosion of the pipe. On our walkthrough, we noted that there were many places that the insulation was wet and growing mold. Also, there were places where the insulation was not continuous, and condensation was dripping on finished surfaces.
- There are two gas-fired cast iron boilers that provide hot water to the heating units in the school. The chiller is manufactured by Trane and is rated for 30 tons of cooling. The chiller utilizes R-22 refrigerant and should either be replaced or at least have the refrigerant replaced. R-22 is in phase-out, meaning that if the chiller loses refrigerant due to a leak, the price for replacement refrigerant will be more expensive, or not available.
- There are two primary hot water pumps, two primary chilled water pumps, and two dual temperature distribution pumps that move hot or chilled water throughout the school/addition. There are VFDs on the secondary pumps. The primary chiller pumps are located in a storage room on the lower level. They were not accessible due to a large about of equipment/ materials stacked in front of them. This room should be cleaned out, so the equipment is accessible for service.
- *Ventilation* – There is an air handling unit in the attic space with an energy recovery wheel, that appears to maybe be a dedicated outside air unit providing fresh air to the building. Unit is tagged AHU-2.
- There is another air handling unit in the basement. Not much information on this unit, as the day we were there, there was so much equipment and supplies piled in front of it, it wasn't accessible.
- There are also two rooftop air handling units located on the roof, tagged RTU-1, 2. Both are gas-fired makeup air units, maybe serving the cafeteria/ kitchen.

- *Classrooms* – All of the classrooms have heating/ cooling provided by console fan coil units in each classroom. These units have a fan and coil in them. The hot/chilled water distributed to the coils in these units throughout the building, utilizes a 2-pipe changeover system. In the summer, chilled water is produced at the chiller and pumped throughout the building. In the winter, hot water is pumped through the same piping distribution. One issue is that the insulation is not continuous, which can be seen by puddling under pipes. Since there are areas that the insulation is not continuous, over time, the condensation saturates the pipe insulation. This will also increase the rate of corrosion of the pipe. On our walkthrough, it was noted that there were many places that the pipe insulation was wet and growing mold.
- *Offices* – Offices are served by fan coil units that provide heating and cooling. Fresh air is provided by the DOAS unit.
- *Gym/Cafeteria* – The gym/cafeteria is served by a rooftop air handling unit that provides heating and fresh air to the space. The ductwork is tight to the ceiling.

Electrical

- The building is served by a 1600A service that seems to be in fairly good condition. The building lighting was upgraded to LEDs within the last 5 years.
- IT intercom systems throughout the building have issue and are in need of replacement.

Plumbing

- A smaller independent gas-fired boiler heats up domestic hot water indirectly, in a storage tank, that is then distributed throughout the building. The hot water storage tank looks fairly new, but the boiler has reached the end of its useful life and should be replaced.

Grounds

- Bus drop/off pick up has historically been an issue and there has been discussion of closing Bradford St. to thru traffic.
- Building lacks ADA parking – will need to be addressed.

Safety & Regulatory Compliance

- Building lacks ADA parking – will need to be addressed.
- Install ADA compliant handrail system at stepped entrances.

The Facilities Conditions Assessment is a technical assessment of deferred maintenance needs across the various building components of Andrews Elementary School. The individual needs identified in this assessment were categorized within eight (8) major building maintenance systems as summarized below.

Exterior Shell

Exterior projects total $75,000 of repair and include:

- Acid wash exterior masonry
  - $25,000 – Priority Level Medium
- Repaint exterior wood trim at entrances.
  - $15,000 – Priority Level Medium
- Refinish existing entrance railings.
  - $10,000 – Priority Level High
- Replace rotted plywood decking at flat roof area and repair roof
  - $25,000 – Priority Level Medium

Interior Shell

Interior shell projects total $20,000 of repair and include:

- Repair drywall ceiling damage and peeling paint.
  - $15,000 – Priority Level Medium
- Replace damaged ACT tiles.
  - $5,000 – Priority Level Medium

HVAC

HVAC projects total $130,000 of repair and include:

- Remove and replace all HVAC insulation.
  - $30,000 – Priority Level High
- Replace 30-Tom Chiller.
  - $100,000 – Priority Level Medium

Electrical

Electrical projects total $35,650 of repair and include:

- Intercom system throughout building needs full replacement.
  - $35,650 – Priority Level High

Plumbing

Plumbing projects total $60,000 of repair and include:

- Replace Boiler
  - $60,000 – Priority Level Medium

Grounds

Grounds projects total $150,000 of repair and include:

- Reorganize bus drop off / pickup reconfiguration, possible closure of Bradford St.
  - $150,000 – Priority Level Medium

Statutory – No projects were identified.

Accessibility – Items addressed in Interior Shell

Existing Conditions Photographs

	
Exterior wood entry	Original metal door.
	
Organic growth on exterior brick.	Staining at window.

	
Ceiling tile water damage.	Drywall ceiling damage.

Hugh Cole Elementary School, Bristol, RI



The Colliers inspection team identified thirty-three (32) individual projects related to maintenance repair and regulatory issues across Hugh Cole Elementary School. The identified cost for the repair of these deficiencies is estimated to be $3.4 million. Each project was assigned a priority based upon its relative urgency of need as judged by the Colliers inspection team. Of the total need, $2.3 million has been deemed High Priority. The distribution of total need across all priorities can be summarized as follows in Table 8.

Table 8: Summary of Identified Needs by Priority ($ in Millions): Andrews Elementary School

	TOTAL NEED	% OF TOTAL
Priority 1 – High Priority *Projects address issues of asset protection, quality of space, physical environments or regulatory concern.*	**$2.3M**	**67.6%**
Priority 2 – Important *Projects are not imminent in nature but do improve the quality of the Bristol-Warren schools' environment, both administratively and publicly.*	**$1.0M**	**29.4%**
Priority 3 – Deferrable *Projects are recognized for the impending nature of their existence. However, at this time, these issues can be deferred until a later date.*	**$49K**	**3.0%**
Total Facilities Needs	**$3.4**	**100.0%**

Inspection Summary – Hugh Cole Elementary School Houses Grades Pre-K-5, was built in 1968 with a recent addition, is comprised of a 1 story 84,536 GSF building. School is well maintained and clean.

Exterior Shell

- Brick façade on CMU backup is in good/fair condition, some locations of vertical cracking along mortar joints, some spauling and effervescence noticed.
- Building has a 2-ply built up roofing system – reports of leaking in the gymnasium and adjacent music room have been reported during heavy rain storms.

- Older roofing edge metal is nearing the end of its life, one location roofing edge metal has peeled away from the building.
- Shingle roof in good condition in all areas
- Most of the windows throughout the building are new with new caulking that is in good condition. Some older windows with older caulking at the end of their life
- Some minor bio growth on windowsills noticed.
- Fence broken at exterior gas meter connection to building, one small 3”-4” hole open in area.
- Most of the windows throughout the building are new with new caulking that is in good.

Interior Shell

- Mildew problems reported in the building over the summer specifically in classrooms – 64, 57, & 62. Mold noticed on some ceiling tiles in these rooms.
- Flooring, CMU walls, and ACT in great shape through most of the north wing of the building, minor stains on ceiling tiles, and minor vertical cracking at interior CMU joints.
- Flooring, Walls, and ACT in southern(older) building in ok to poor condition, ceiling tiles are dated and stained, walls have damage or paint peeling, and flooring is dated and nearing end of life, in some areas cracking or missing.
- Minor floor cracking throughout building predominantly at doorway thresholds.
- Some interior doors mainly throughout the southern portion of the building have non-compliant hardware and doors are work and in poor condition.
- Door closer removed from little kid toilet in room 44.
- Boys and girls restrooms tile and stall finishes are dated, boys room is in poor condition, missing two small tiles in flooring, one urinal is chipped, & damaged urinal divider. Girls restroom in poor condition.
- Cafeteria ceiling grid clouds wood box outs with act shows paint peeling off in some areas, some stained ceiling tiles, flooring and walls in good shape.
- Exterior door 4 is in poor condition.
- Kitchen is in good condition, minor cracking in tile floor.
- Kitchen exterior exit doors hardware is not code compliant.
- Toilet in kitchen area not code compliant, older dated finishes.
- Open junction box in kitchen bathroom, wires capped.
- Gymnasium shows some leaking stains present on walls, small are of gym floor has buckled likely due to water damage. Door hardware and crash bars are not code compliant, dent in gypsum soffit above stage.
- Door 6 to gym office swings into the building, not code compliant as egress door.
- Gym office bathroom in bad condition, tile condition ok but dated, missing wall base.
- Cracking at terrazzo tile in lobby outside gym.
- Door 12 vestibule has cracked and damaged tile at door base, removable mullions are starting to rot out at base.
- Multiple doors with wire mesh glass window, not code compliant.
- Sinks in southern wings classrooms built into casework not ADA compliant.

- Decommissioned bathroom between classrooms 112 and 116 being used for storage space, door is blocked by storage items, tile and walls in poor condition.
- Room divider panels between classrooms in southern building area dated and worn, some areas have missing wall base.
- Casework in southern building is work and damaged in some areas.
- Old wing has possible transite wall panels and possible asbestos ceiling tiles.
- Bathrooms in poor condition, sink counter damaged and deteriorated.

HVAC

- the addition utilizes a 2-pipe switchover system to provide cooling in those rooms. The insulation, however, is not continuous and condensation is saturating existing insulation and could lead to the deterioration of the pipe and insulation.
- When reviewing the boiler room, it was noted that the hot water primary loop was condensing. After further review, it was noted that the 3-way valve, which would prevent the chilled water from being piped into the hot water loop had failed. Facilities staff to follow up with the ATC vendor.
- There are two gas-fired boilers that provide hot water to the heating units in the school. The boilers are gas fired. When reviewing the boiler room equipment and piping, it was noted that the hot water primary loop piping was condensing.
- There are two primary hot water pumps, two primary chilled water pumps, and two dual temperature distribution pumps that move hot or chilled water throughout the school/addition (cooling).
- *Ventilation* – Exhaust fans are an integral part of the ventilation system for the school. Less than half of the fans are running.
- *Classrooms* – All of the classrooms have heat and fresh air provided by unit ventilators. In the addition, there is a 2-pipe changeover system which allows for heating or cooling in those UVs. The issue is that the insulation is not continuous, which can be seen puddling under pipes. The insulation is saturated in many areas and piping is rusting.
- *Offices* – Nurse & Central Office are served with a rooftop AHU that provides heating, cooling, and fresh air.
- *Library* – The library is served by a 5T indoor air handler that is located near the ceiling and is hung in the space. AHU unit that provides heating and cooling. The unit does not have extensive ductwork, so the air is not distributed evenly, nor is there a significant heat load, so the space is extremely cold and humid. There is no reheat function, so the air is provided <60F. The unit is dripping condensate, because the AHU is not well insulated, and the casing is condensing. There are two trash cans below it.
- *Cafeteria* – The cafeteria is served by 4 UVs that provide heating, cooling and fresh air. It is doubtful that the amount of fresh air meets the code requirement, as this is a large gathering space.
- *Additional Cooling Required* – There is a split-system AC serving a data closet that is

currently offline (broken). Staff is keeping the door open and using a fan to move air through the closet. There are also some spot coolers and mini-split AC units serving individual classrooms, that may be required for some students.

Electrical

- The building is served by a 200A service that seems to be in fairly good condition. The building lighting was upgraded to LEDs within the last 5 years.
- Classroom switching is inconsistent.
- IT intercom systems throughout the building have issue and are in need of replacement.

Plumbing

- The hot water tank is new- it was installed in July 2022.
- When the addition was built in the 1990's, the wrong schedule pipe was used for the sprinkler system, and it is now rotting from the inside out. There have been and will continue to have pin-hole size leaks that cause issues within the school and the facilities staff has to track them down and fix them, or the system will fail.

Grounds

- Parking areas and walkways are in fair condition, multiple potholes and areas of deteriorating asphalt throughout parking lot and back of school drop off loop.
- Concrete walkways are in good condition some areas have eroding soils or stone surrounding the concrete pads or walkways exposing sides and some bottoms of concrete pads.
- District report traffic/congestion issues as drop-off/pickup times.

Safety & Regulatory Compliance

- No issues reported by facilities
- Dry sprinkler system in attic space presents monthly maintenance issues. Should be addressed for the long-term.
- Multiple non-ADA code compliant door hardware throughout building, mostly in older wing.
- Security cameras noticed around the building, coverage over most of the exterior.

The Facilities Conditions Assessment is a technical assessment of deferred maintenance needs across the various building components of Hugh Cole Elementary School. The individual needs identified in this assessment were categorized within eight (8) major building maintenance systems as summarized below.

Exterior Shell

Exterior projects total $1,443,500 of repair and include:

- Exterior Masonry Repointing and repair
  - $20,000 – Priority Medium
- Replace membrane roof at older section of school.
  - $1,413,000 – Priority Level High
- Replace caulking at older windows.
  - $8,500 – Priority Level High
- Repair broken fence at gas meter.
  - $2,000 – Priority Level Medium

Interior Shell

Interior shell projects total $1,356,800 of repair and include:

- Replace moldy ceiling tiles.
  - $2,500 – Priority Level High
- Replace flooring and ACT in older building and repaint walls
  - $468,000 – Priority Level Medium
- Replace non-ADA-Compliant door hardware
  - $30,000 – Priority Level High
- Renovate boys' and girls' bathrooms with new tile, paint, fixtures, vanities, and partitions
  - $400,000 – Priority Level Medium
- Replace door 4.
  - $3,000 – Priority Level Low
- Replace cracked tile in kitchen.
  - $1,500 – Priority Level Low
- Renovate kitchen restroom and bring up to code.
  - $7,800 – Priority Level Medium
- Repair gymnasium gypsum soffit
  - $5,000 – Priority Level Medium
- Renovate gym office bathroom.
  - $20,000 – Priority Level Medium
- Replace door 12 removable mullions.
  - $9,000 – Priority Level Low
- Repair cracking terrazzo
  - $10,000 – Priority Level Low
- Replace wire glass door lites with tempered glass
  - $15,000 – Priority Level High
- Replace sinks in southern wing with ADA compliant sinks.
  - $16,000 – Priority Level High
- Renovate decommissioned bathrooms between rooms 112 & 116 into proper storage rooms

- $12,000 – Priority Level Low
- Replace wall base on room divider panels
  - $5,000 – Priority Level Low
- Replace damaged classroom casework.
  - $96,000 – Priority Level Medium
- Abatement of suspected transite wall panels and asbestos ceiling tiles
  - $250,000 – Priority Level High

HVAC

HVAC projects total $185,000 of repair and include:

- Insulate piping so it is continuous to prevent condensation.
  - $15,000 – Priority Level High
- Replace 3-way valve on hot water loop.
  - $5,000 – Priority Level High
- Repair/Replace exhaust fans that are not running.
  - $50,000 – Priority Level High
- Replace rusting piping and insulate piping at classroom unit ventilators.
  - $25,000 – Priority Level High
- Add ductwork, reinsulate, and add reheat coil at Library.
  - $50,000 – Priority Level High
- Add fresh air to cafeteria to meet code requirements.
  - $20,000 – Priority Level High
- Repair/Replace split system AC for data room.
  - $10,000 – Priority Level High

Electrical

Electrical projects total $8,500 of repair and include:

- Update classroom switching for consistency throughout school.
  - $8,500 – Priority Level Low
- Intercom system throughout building needs full replacement.
  - $153,855 – Priority Level High

Plumbing

Plumbing projects total $195,000 of repair and include:

- Replace sprinkler piping installed using the wrong schedule pipe
  - $195,000 – Priority Level High

Grounds

Grounds projects total $35,000 of repair and include:

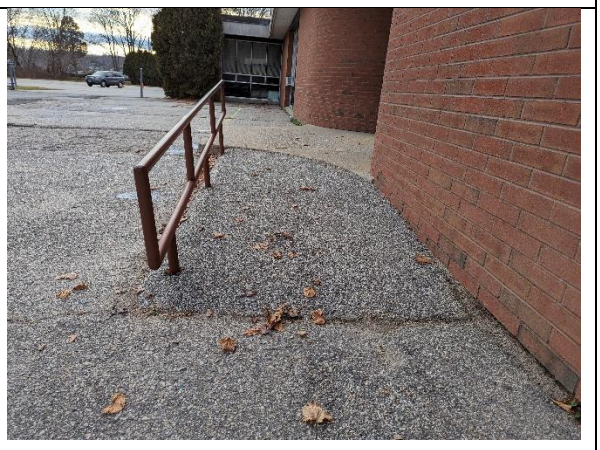
- Repair potholes and deteriorated areas of pavement
  - $30,000 – Priority Level Medium

- Add and regrade stone at concrete pads
  - $5,000 – Priority Level Medium

Statutory – No projects were identified.

Accessibility – Items addressed in Interior Shell

Existing Conditions Photographs

<table>
<tr><td> 
</td><td>  </td></tr>
<tr><td>Hugh Cole School</td><td>Broken fence at gas meter</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>New window replaced next to old window existing.</td><td>Damaged railing at entry.</td></tr>
</table>

	
Rotting door and frame	Stained ceiling tile
	
Damaged sink and counter.	Exterior door rusting

End of Report

Bristol Warren

LEA Summary

Bristol Warren totals 551,283 square feet and consists of the school type(s) detailed below. School(s) were visited three times during the Statewide Facilities Assessment by teams of specialists from April-July 2016. This report provides LEA summary findings for the statewide assessment program.

School Type by Count



School Type	SqFt
Elementary School	223,636
Middle School	149,915
High School	177,732
Total:	**551,283**

Demographics

Enrollment is projected to decrease by 12.6% over the next 10 years in Bristol Warren. The total LEA enrollment at 6 school(s) is 3,288 students with a total capacity of 4,098 as reported by the LEA. Utilization is calculated by dividing enrollment by capacity, resulting in 80.2% utilization at Bristol Warren.

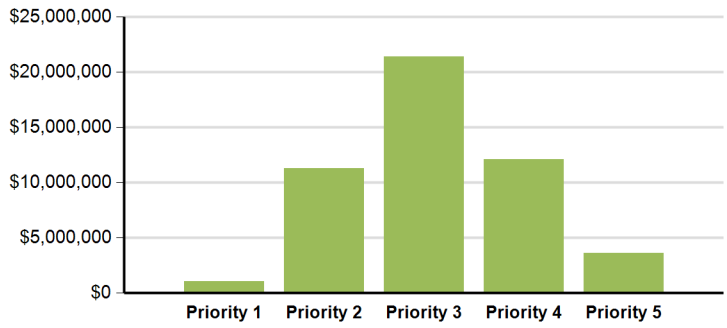
80.2 % Utilization



Educational Program Space Analysis

In Bristol Warren there are 272 instructional spaces; of these spaces 25.7% meet or exceed the space size standards. Of the total current deficiencies identified, $4,742,060 are related to the educational program space assessment. Addressing these identified deficiencies will improve the learning environment and bring the school(s) in the district closer to 21st century learning facilities.

Total Current Deficiencies



Five Year Need Summary

The current deficiencies total $49,471,548, with 43.3% categorized as Priority 3 and another 24.4% as Priority 4. The building systems with the highest current deficiency costs are Interior and Technology.

The projected life cycle need in Years 1 through 5 is $10,060,814. It is anticipated that the majority of the need will occur in Year 5. School(s) with the greatest need are represented in the adjacent table and make up 77.0% of the combined 5-Year need at Bristol Warren.

School(s) with Greatest Need	Combined 5-Year Need
Mt. Hope High School	$22,406,303
Kickemuit Middle School	$16,193,355
Hugh Cole School	$7,256,649

Five Year Facility Condition Index (FCI)

For master planning purposes, the total current deficiencies, less new construction, and the first 5 years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-Year FCI was calculated by dividing the 5-Year need by the total replacement cost. The 5-Year need is $59,532,362 with a district replacement value of $192,019,672. The resulting 5-Year FCI is 31.0%.

5-Year FCI Ranges



LEA Summary Data					
Gross SqFt	Avg Year Built	Current Deficiencies (Less New Construction)	Life Cycle Year 1-5 Total	Total 5-Year Need (Year 1-5 + Current Defs)	5-Year FCI
551,283	1946	$49,471,548	$10,060,814	$59,532,362	31.0%

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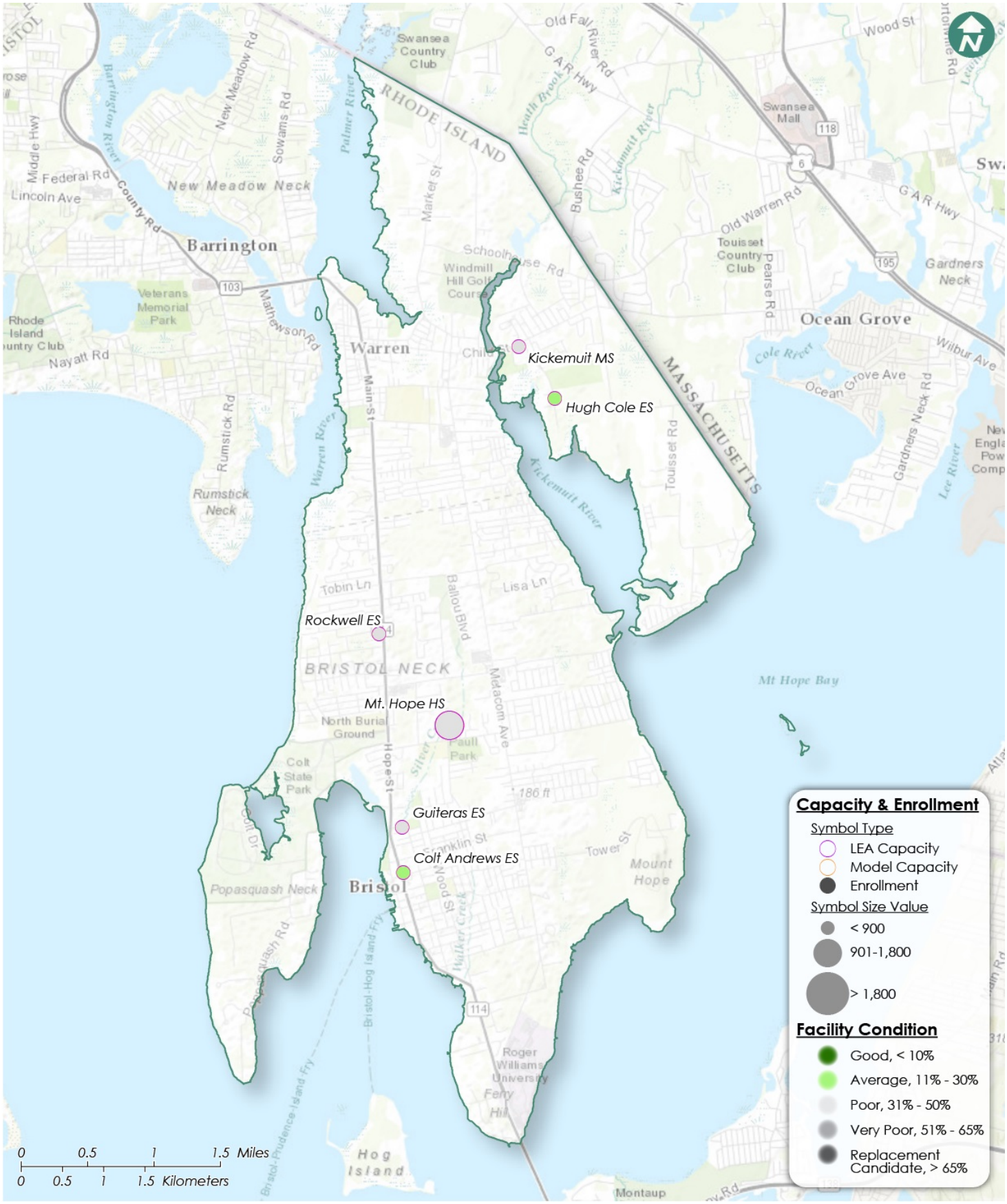
Bristol Warren



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Facility Condition Assessment

Bristol Warren - Colt Andrews School | *June 2017*

570-574 Hope Street, Bristol, RI 02809



Introduction

Colt Andrews School, located at 570-574 Hope Street in Bristol, Rhode Island, was built in 1906. It comprises 71,300 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Colt Andrews School serves grades KG - 5, has 32 instructional spaces, and has an enrollment of 368. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Colt Andrews School is 432 with a resulting utilization of 85%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Colt Andrews School the 5-year need is $3,620,454. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.



Figure 1: Aerial view of Colt Andrews School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Colt Andrews School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Colt School:	Fiber Cement Exterior Wall
	Wood Exterior Windows
	Steel Exterior Entrance Doors
02 - Andrews School:	Brick Exterior Wall
	Vinyl on Wood Frame Exterior Windows
	Storefront Entrance Doors

The roofing for the building(s) at this campus consists of:

01 - Colt School:	Clay Tile Roofing
02 - Andrews School:	Composition Shingle Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Colt School:	Wood Interior Doors
	Steel Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Brick/Stone Veneer
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Carpet
02 - Andrews School:	Wood Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware

02 - Andrews School:	Suspended Acoustical Grid System
	Painted Ceilings
	Ceramic Tile Wall
	Acoustical Wall Paneling
	Brick/Stone Veneer
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Epoxy Coated Flooring
	Carpet
	Athletic/Sport Flooring

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Colt School:	1,275 MBH Cast Iron Water Boiler
	3,264 MBH Cast Iron Water Boiler
	Steam/Hot Water Heating Unit Vent
	DDC Heating System Controls
	1 Ton Ductless Split System
	5 HP VFD
	5 HP Pump
	2-Pipe Hot Water Hydronic Distribution System
	15,000 CFM Interior AHU
	15,000 CFM Outdoor AHU
	Ductwork
	Kitchen Exhaust Hoods
	Roof Exhaust Fan
	Fire Sprinkler System
02 - Andrews School:	1,275 MBH Cast Iron Water Boiler
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	Electronic Heating System Controls
	1 Ton Ductless Split System
	3 Ton Outside Air Cooled Condenser
	2-Pipe Hot Water Hydronic Distribution System
	5 HP Pump
	Ductwork
	15,000 CFM Interior AHU
	15,000 CFM Outdoor AHU
	Roof Exhaust Fan
	Supply Fan

02 - Andrews School:	Fire Sprinkler System

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Colt School:	2" Backflow Preventers
	Gas Piping System
	100 Gallon Gas Water Heater
02 - Andrews School:	2" Backflow Preventers
	Gas Piping System
	100 Gallon Gas Water Heater
01 - Colt School:	Domestic Water Piping System
02 - Andrews School:	Domestic Water Piping System
01 - Colt School:	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
02 - Andrews School:	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
01 - Colt School:	Sump Pump
02 - Andrews School:	Sump Pump
01 - Colt School:	Air Compressor (5 hp)

Electrical

The electrical systems for the building(s) at this campus include:

01 - Colt School:	208/120v Switch
	1,200 Amp Switchgear
	Panelboard - 120/208 125A
	Panelboard - 120/208 225A
	Building Mounted Lighting Fixtures
	Light Fixtures
02 - Andrews School:	208/120v Switch
	1,600 Amp Switchgear
	Panelboard - 120/208 125A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Building Mounted Lighting Fixtures

02 - Andrews School:	Light Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$151,087	$175,819	$69,827	$396,734	12.93 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$350	-	-	-	$350	0.01 %
Interior	-	-	$421,535	$146,708	$97,620	$665,864	21.70 %
Mechanical	-	$259,702	-	-	-	$259,702	8.46 %
Electrical	-	-	-	-	$57,567	$57,567	1.88 %
Plumbing	-	-	$271,079	-	$17,375	$288,454	9.40 %
Fire and Life Safety	-	-	-	-	-	$0	0.00 %
Technology	-	-	$1,390,561	-	-	$1,390,561	45.32 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$9,127	-	-	$9,127	0.30 %
Total	$0	$260,052	$2,243,389	$322,528	$242,389	$3,068,358	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Technology	-	$1,390,561
Interior	-	$665,864
Site	-	$396,734

The chart below represents the building systems and associated deficiency costs.

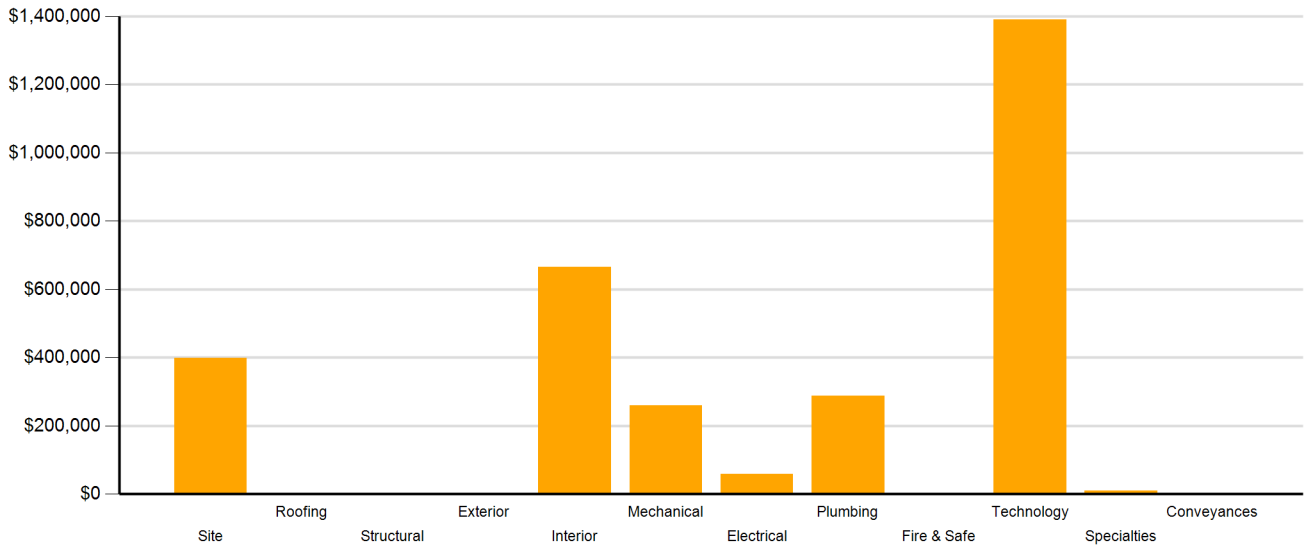


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	$3,708	-	$3,708
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$260,052	$687,619	$238,542	$88,379	$1,274,593
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$31,943	$28,329	$154,010	$214,282
Functional Deficiency	-	-	$4,995	-	-	$4,995
Hazardous Material	-	-	-	$51,949	-	$51,949
Technology	-	-	$1,367,744	-	-	$1,367,744
Traffic	-	-	$151,087	-	-	$151,087
Total	$0	$260,052	$2,243,389	$322,528	$242,389	$3,068,358

**Displayed totals may not sum exactly due to mathematical rounding*

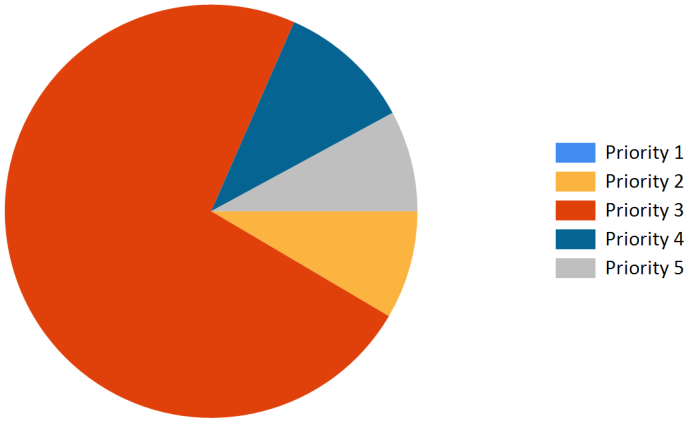


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$396,734	$0	$0	$0	$0	$74,154	$74,154	$470,888
Roofing	$0	$0	$0	$0	$0	$0	$0	$0
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$350	$0	$0	$0	$0	$0	$0	$350
Interior	$665,864	$0	$43,730	$0	$0	$211,978	$255,708	$921,572
Mechanical	$259,702	$0	$0	$0	$0	$0	$0	$259,702
Electrical	$57,567	$0	$0	$0	$0	$0	$0	$57,567
Plumbing	$288,454	$0	$0	$5,322	$0	$5,322	$10,644	$299,098
Fire and Life Safety	$0	$0	$0	$0	$208,980	$0	$208,980	$208,980
Technology	$1,390,561	$0	$0	$0	$0	$0	$0	$1,390,561
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$9,127	$0	$0	$0	$0	$0	$0	$9,127
Total	**$3,068,358**	**$0**	**$43,730**	**$5,322**	**$208,980**	**$291,454**	**$549,486**	**$3,617,844**

**Displayed totals may not sum exactly due to mathematical rounding*

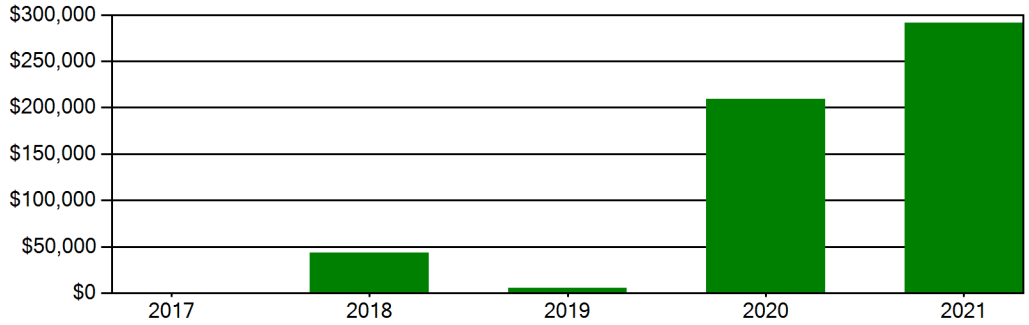
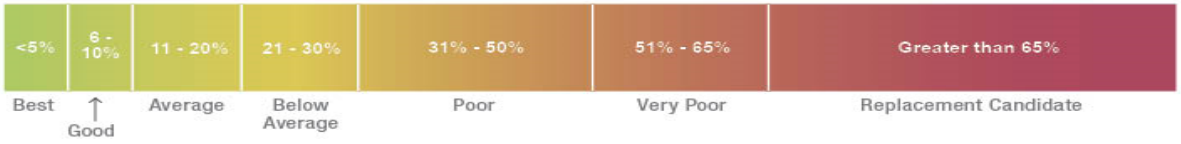


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $24,955,000. For planning purposes, the total 5-year need at the Colt Andrews School is $3,620,454 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Colt Andrews School facility has a 5-year FCI of 14.50%.

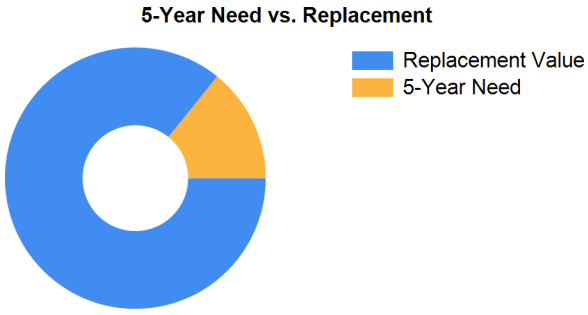


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 430 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Colt Andrews School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $353,430.

Summary of Findings

The Colt Andrews School comprises 71,300 square feet and was constructed in 1906. Current deficiencies at this school total $3,070,968. Five year capital renewal costs total $549,486. The total identified need for the Colt Andrews School (current deficiencies and 5-year capital renewal costs) is $3,620,454. The 5-year FCI is 14.50%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Colt Andrews School Totals	71,300	1906	$3,070,968	$549,486	$3,620,454	14.50%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Traffic Signage Is Required	Traffic	4	Ea.	3	$151,087	9292
Note: Add school zone signs on adjacent roadways (2 on Hope St, 2 on Bradford St)						
Asphalt Paving Requires Replacement	Capital Renewal	30	CAR	4	$98,587	11431
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28405
Note: Backstops Require Replacement						
Fencing Requires Replacement (4' Chain Link Fence)	Capital Renewal	750	LF	4	$48,159	11430
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,807	28687
Note: Exterior Basketball Goals are Required						
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	$64,020	54859
Note: PE / Recess Playfield is Missing and is Needed						
	Sub Total for System	**6**	**items**		**$395,990**	
	Sub Total for School and Site Level	**6**	**items**		**$395,990**	

Building: 01 - Colt School

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Glass Pane In The Storefront Window Requires Replacement	Capital Renewal	10	SF	2	$350	9669
Note: First floor office interior window is cracked and should be replaced.						
	Sub Total for System	**1**	**items**		**$350**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Doors Require Replacement	Functional Deficiency	1	Door	3	$4,995	9663
Note: Lower level boy's restroom door is swelling and delaminating.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	4,300	SF	3	$53,439	9664
Note: There are cracks in the VCT floor at the 1st floor lobby, 2nd floor corridor, and north stairwell 2nd landing.						
Interior Gypsum Board Walls Require Repair	Capital Renewal	2,000	SF Wall	4	$15,835	9666
Location: Girl's restroom, VP office, Room C117						
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$2,282	Rollup
Room lacks appropriate sound control.	Educational Adequacy	200	SF	5	$6,959	Rollup
The Gypsum Board Ceilings Require Repainting	Capital Renewal	5,449	SF	5	$24,693	Rollup
	Sub Total for System	**6**	**items**		**$108,203**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	31,100	SF	2	$259,702	9668
	Sub Total for System	**1**	**items**		**$259,702**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	36	Ea.	5	$17,866	Rollup
	Sub Total for System	**1**	**items**		**$17,866**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	31,100	SF	3	$271,079	9667
Note: Replace pipes and insulation.						
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	1	Ea.	5	$1,512	Rollup
	Sub Total for System	**2**	**items**		**$272,591**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	1	Ea.	3	$5,704	Rollup
	Sub Total for System	**1**	**items**		**$5,704**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	$4,563	Rollup
	Sub Total for System	**1**	**items**		**$4,563**	
	Sub Total for Building 01 - Colt School	**13**	**items**		**$668,979**	

Building: 02 - Andrews School

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Bleachers Require Repainting	Capital Renewal	165	Seat	4	$744	9659
	Sub Total for System	**1**	**items**		**$744**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Vinyl Composition Tile Requires Replacement	Capital Renewal	29,217	SF	3	$363,101	9661
Note: VCT is aged and chipped with cracks and stains.						
Interior Gypsum Board Walls Require Repair	Capital Renewal	9,500	SF Wall	4	$75,216	9658
Note: There are cracks in the gypboard wall in the stairwells, damage to corners, and various chips in walls.						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	12	Ea.	4	$3,708	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	460	LF	4	$11,370	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	3,580	SF	4	$36,871	Rollup
Partitions Provide Insufficient Sound Isolation	Acoustics	120	SF	4	$3,708	19686
Note: Principal Office						
The Exposed Ceilings Require Repainting	Capital Renewal	5,153	SF	5	$63,686	9660
Note: Gym ceiling shows flaking paint.						
	Sub Total for System	**7**	**items**		**$557,660**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	80	Ea.	5	$39,701	Rollup
	Sub Total for System	**1**	**items**		**$39,701**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks a drinking fountain.	Educational Adequacy	7	Ea.	5	$7,720	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	8	Ea.	5	$8,143	Rollup
	Sub Total for System	**2**	**items**		**$15,863**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	3	Ea.	3	$17,113	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	288	Ea.	3	$148,309	18346
Technology: Campus wireless infrastructure inadequate.	Technology	46	Ea.	3	$66,327	18345
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1	Ea.	3	$21,628	18352
Technology: Instructional spaces do not have local sound reinforcement.	Technology	40	Ea.	3	$205,984	18355

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	4	Ea.	3	$23,070	18343
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$40,785	18340
Technology: Intermediate Telecommunications Room needs M/E improvements.	Technology	3	Ea.	3	$79,098	18341
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	4	Ea.	3	$20,598	18342
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	2	Ea.	3	$14,419	18338
Technology: Main Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$31,722	18336
Technology: Main Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$23,482	18335
Technology: Main Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	2	Ea.	3	$19,569	18337
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	103	Ea.	3	$47,737	18347
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	144	Ea.	3	$66,739	18351
Technology: Network system inadequate and/or near end of useful life	Technology	48	Ea.	3	$247,181	18354
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	71,032	SF	3	$131,683	18353
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$58,706	18348
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	2	Ea.	3	$16,479	18339
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	4	Ea.	3	$20,598	18344
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	46	Ea.	3	$75,802	18349
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,827	18350
	Sub Total for System	**22**	**items**		**$1,384,856**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	$4,563	Rollup
	Sub Total for System	**1**	**items**		**$4,563**	
	Sub Total for Building 02 - Andrews School	**34**	**items**		**$2,003,389**	
	Total for Campus	**53**	**items**		**$3,068,358**	

Colt Andrews School - Life Cycle Summary Yrs 1-5

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fences and Gates	Wood	300	LF	$74,154	5
Note:	Andrews School				
	Sub Total for System	**1**	**items**	**$74,154**	
	Sub Total for Building -	**1**	**items**	**$74,154**	

Building: 01 - Colt School

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Suspended Plaster and	Painted ceilings	10,898	SF	$45,587	5
Wall Painting and Coating	Painting/Staining (Bldg SF)	12,440	SF	$82,195	5
Carpeting	Carpet	3,870	SF	$84,196	5
	Sub Total for System	**3**	**items**	**$211,979**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 100 Gallon	1	Ea.	$5,322	5
Note:	120 gallons				
	Sub Total for System	**1**	**items**	**$5,322**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	31,100	SF	$91,154	4
	Sub Total for System	**1**	**items**	**$91,154**	
	Sub Total for Building 01 - Colt School	**5**	**items**	**$308,455**	

Building: 02 - Andrews School

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Carpeting	Carpet	2,010	SF	$43,730	2
	Sub Total for System	**1**	**items**	**$43,730**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Gas - 100 Gallon	1	Ea.	$5,322	3
Note:	120 gallon				
	Sub Total for System	**1**	**items**	**$5,322**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	40,200	SF	$117,826	4
	Sub Total for System	**1**	**items**	**$117,826**	
	Sub Total for Building 02 - Andrews School	**3**	**items**	**$166,878**	
	Total for: Colt Andrews School	**9**	**items**	**$549,487**	

Supporting Photos


Typical Damage to Walls


Computer Lab


Main Entry


Gypsum Board Wall Damage

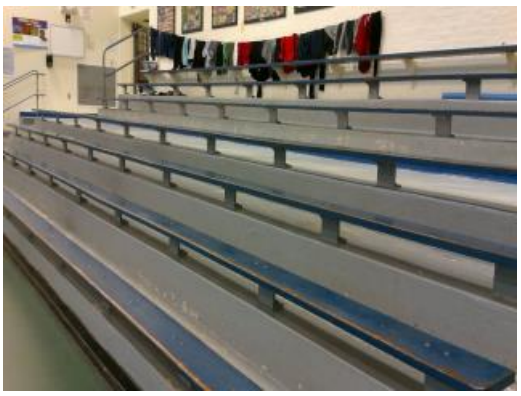

Typical Lockers


Typical Classroom


Site Aerial


Stained VCT


Cracked VCT


Faded Paint At Bleachers


Damage To Wall Corner


Kitchen



Lobby Plaque


Restroom Finishes


Lockers


Entrance



Andrews School Sign


Corridor Finishes


Gym/Cafeteria


Theater


Play Area



Cracked Window


Aged Piping


Chipped Gypsum Board Wall


Ceiling Paint Flaking


Cracked VCT


Delaminating Door


Peeling Ceiling Paint



Library



Colt School Sign



Colt School Plaque



Cracked Gypboard Wall

Facility Condition Assessment

Bristol Warren - Guiteras School | *June 2017*

35 Washington Street, Bristol, RI 02809



Introduction

Guiteras School, located at 35 Washington Street in Bristol, Rhode Island, was built in 1929. It comprises 38,600 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Guiteras School serves grades KG - 5, has 23 instructional spaces, and has an enrollment of 303. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Guiteras School is 288 with a resulting utilization of 105%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Guiteras School the 5-year need is $6,012,645. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

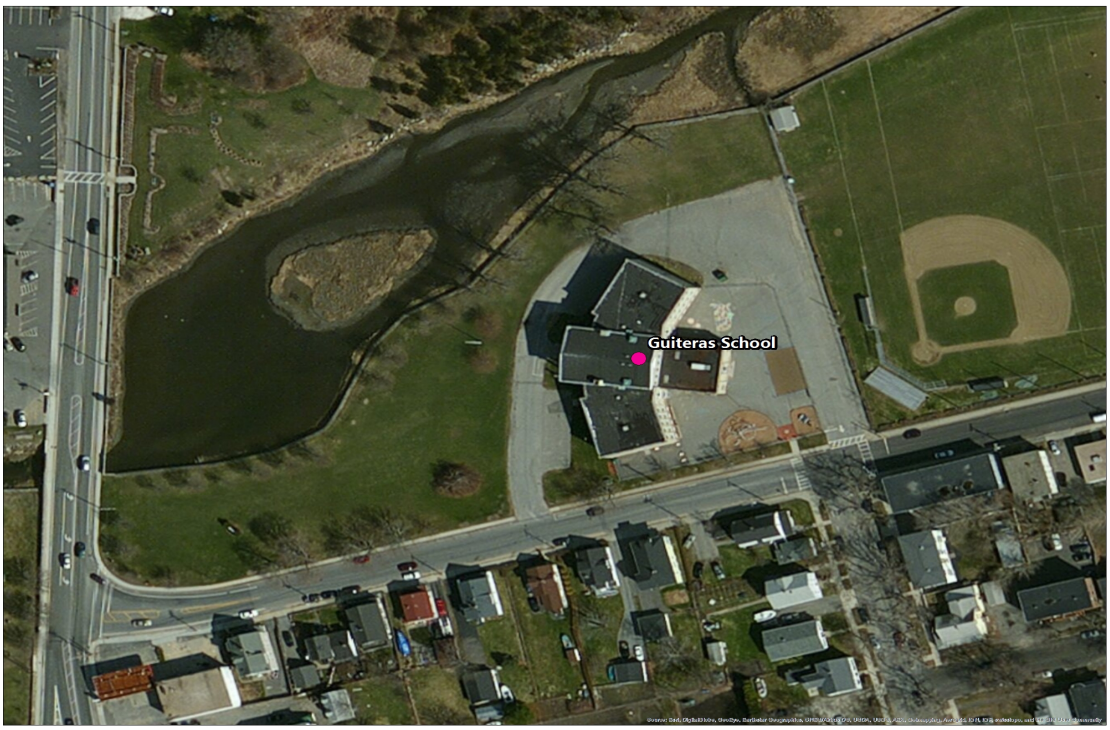


Figure 1: Aerial view of Guiteras School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Guiteras School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	CMU Exterior Wall
	Vinyl on Wood Frame Exterior Windows
	Steel Exterior Entrance Doors
	Storefront Entrance Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Single Ply Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Carpet
	Athletic/Sport Flooring

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	3,264 MBH Cast Iron Water Boiler

01 - Main Building:	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	DDC Heating System Controls
	2-Pipe Hot Water Hydronic Distribution System
	5 HP Pump
	5 Ton DX Gas Roof Top Unit
	10,000 CFM Outdoor AHU
	Ductwork
	Kitchen Exhaust Hoods
	Roof Exhaust Fan
	Fire Sprinkler System

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	2" Backflow Preventers
	Gas Piping System
	80 Gallon Electric Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
	Sump Pump
	275 Gallon Above Ground Fuel Oil Storage Tank

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	800 Amp Distribution Panel
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Light Fixtures
	Building Mounted Lighting Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$78,825	$28,329	$8,414	$115,568	2.83 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	$69,322	-	-	$69,322	1.70 %
Interior	-	-	$172,139	$972,867	$298,669	$1,443,675	35.32 %
Mechanical	-	$687,035	-	$19,854	$3,260	$710,149	17.38 %
Electrical	-	-	$94,302	-	$43,671	$137,973	3.38 %
Plumbing	-	-	$364,577	$46,109	$18,647	$429,333	10.50 %
Fire and Life Safety	-	-	-	-	-	$0	0.00 %
Technology	-	-	$1,171,805	-	-	$1,171,805	28.67 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$9,127	-	-	$9,127	0.22 %
Total	$0	$687,035	$1,960,096	$1,067,159	$372,661	$4,086,951	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Interior	-	$1,443,675
Technology	-	$1,171,805
Mechanical	-	$710,149

The chart below represents the building systems and associated deficiency costs.

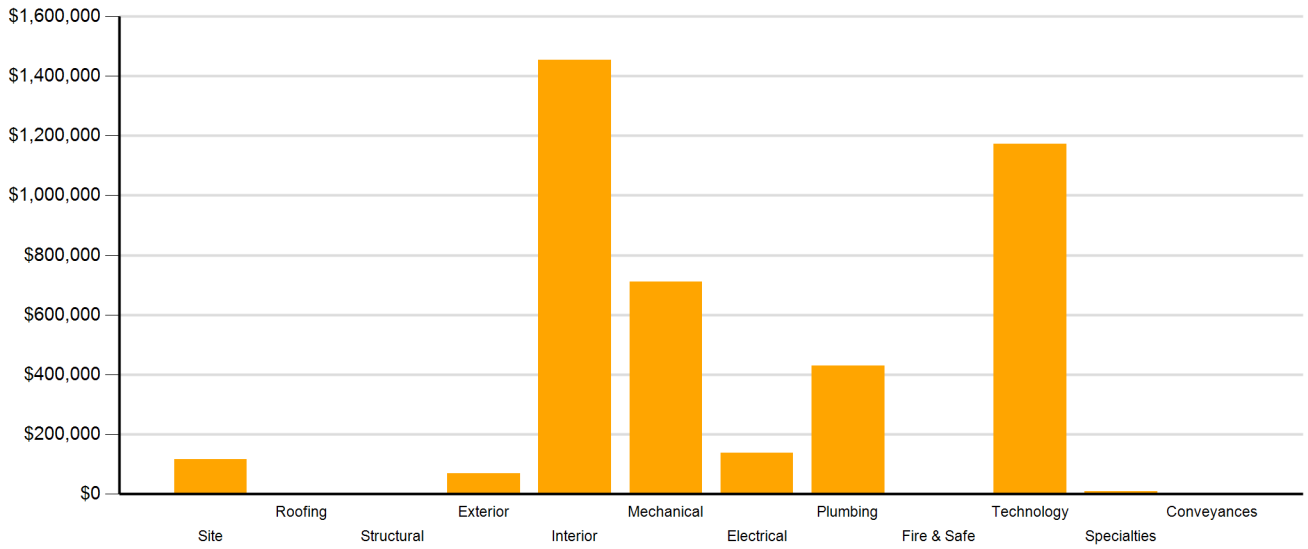


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	$523,626	-	$523,626
Barrier to Accessibility	-	-	$41,065	-	-	$41,065
Capital Renewal	-	$687,035	$581,535	$66,200	$299,647	$1,634,418
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$14,831	$385,972	$70,408	$471,211
Functional Deficiency	-	-	$78,754	-	-	$78,754
Hazardous Material	-	-	-	$91,360	-	$91,360
Technology	-	-	$1,166,101	-	-	$1,166,101
Traffic	-	-	$77,810	-	$2,606	$80,416
Total	$0	$687,035	$1,960,096	$1,067,159	$372,661	$4,086,951

**Displayed totals may not sum exactly due to mathematical rounding*

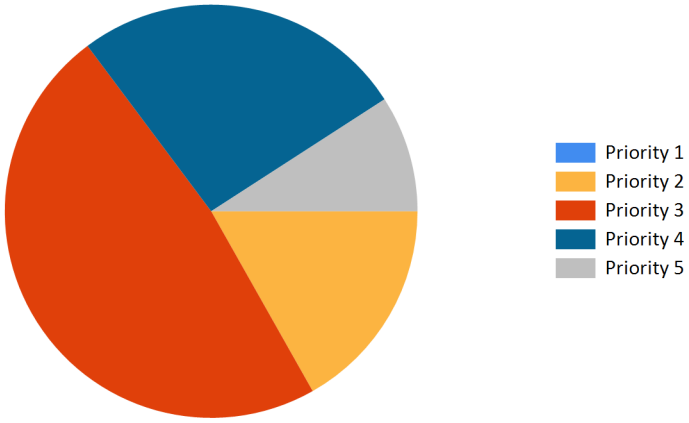


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$115,568	$0	$0	$0	$0	$0	$0	$115,568
Roofing	$0	$0	$0	$0	$0	$0	$0	$0
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$69,322	$0	$0	$0	$0	$0	$0	$69,322
Interior	$1,443,675	$0	$0	$213,213	$0	$0	$213,213	$1,656,888
Mechanical	$710,149	$0	$0	$500,803	$19,398	$0	$520,201	$1,230,350
Electrical	$137,973	$0	$0	$229,356	$0	$0	$229,356	$367,329
Plumbing	$429,333	$0	$0	$1,449	$0	$836,217	$837,666	$1,266,999
Fire and Life Safety	$0	$0	$0	$113,137	$0	$0	$113,137	$113,137
Technology	$1,171,805	$0	$0	$0	$0	$0	$0	$1,171,805
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$9,127	$0	$0	$0	$0	$0	$0	$9,127
Total	**$4,086,951**	**$0**	**$0**	**$1,057,958**	**$19,398**	**$836,217**	**$1,913,573**	**$6,000,524**

**Displayed totals may not sum exactly due to mathematical rounding*

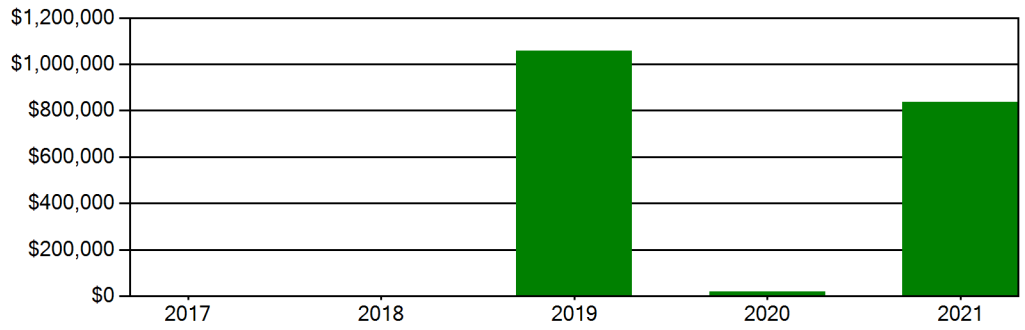
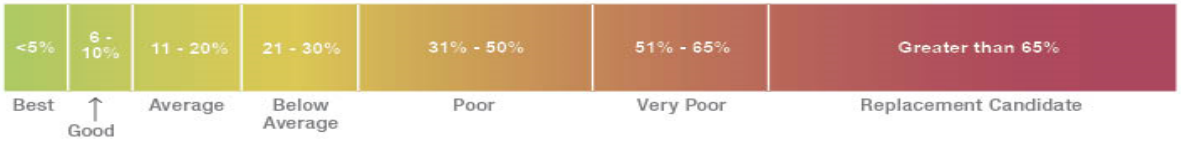


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $13,510,000. For planning purposes, the total 5-year need at the Guiteras School is $6,012,645 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Guiteras School facility has a 5-year FCI of 44.42%.

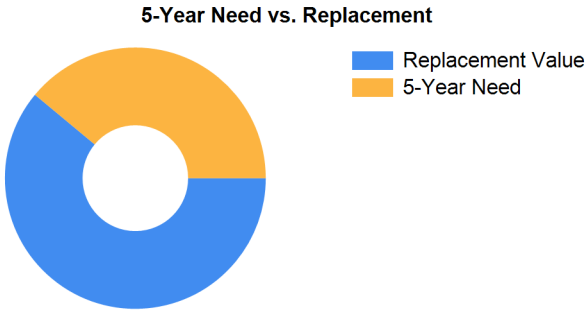


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 214 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Guiteras School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $554,904.

Summary of Findings

The Guiteras School comprises 38,600 square feet and was constructed in 1929. Current deficiencies at this school total $4,099,072. Five year capital renewal costs total $1,913,573. The total identified need for the Guiteras School (current deficiencies and 5-year capital renewal costs) is $6,012,645. The 5-year FCI is 44.42%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Guiteras School Totals	38,600	1929	$4,099,072	$1,913,573	$6,012,645	44.42%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Concrete Walks Require Replacement	Capital Renewal	50	SF	3	$1,015	8766
Note: Concrete is spalling at the west side of the building.						
Crosswalk Requires Repainting	Traffic	3	Ea.	3	$2,266	9325
Note: Repaint crosswalks at front of school						
Traffic Signage Is Required	Traffic	2	Ea.	3	$75,544	9327
Note: Add flashing beacon to school zone signs on adjacent roadway						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28406
Note: Backstops Require Replacement						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,807	28688
Note: Exterior Basketball Goals are Required						
Paving Requires Restriping	Traffic	46	CAR	5	$2,606	9326
Note: Paint parking spots in lots around school						
	Sub Total for System	**6**	**items**		**$115,568**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Pole Lighting Is Missing And Needed	Functional Deficiency	4	Ea.	3	$78,754	8767
Note: School does not have any pole lighting. School has four building mounted fixtures that partially illuminate the parking lot. Light poles should be installed to provide sufficient illumination.						
	Sub Total for System	**1**	**items**		**$78,754**	
	Sub Total for School and Site Level	**7**	**items**		**$194,322**	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Brick Exterior Requires Repair	Capital Renewal	1,000	SF Wall	3	$69,322	9281
	Sub Total for System	**1**	**items**		**$69,322**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior CMU Walls Require Repair	Capital Renewal	750	SF	3	$28,372	8787
Note: Cracked walls should be repaired.						
Location: Rooms 209, 107, B2 restroom, 3rd boy's restroom, 2nd corridor						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	250	SF	3	$2,352	8768
Note: There are several stained or broken acoustical tiles.						
Location: Rooms: 205, 207, 105, 3rd floor resource office, social worker, cafe, 1st floor custodial closet, all 3 floor corridors						
The Carpet Flooring Requires Replacement	Capital Renewal	2,528	SF	3	$57,291	8769
Location: Stairwell entries and library						
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	40	SF	3	$1,119	8772
Location: 3rd floor boy's restroom						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	5,500	SF	3	$65,724	8770
Location: All corridors, Rooms 205, 206, 207, 202, 204, 107, 108, 101, 102, 104, principal, nurse, cafe, custodial closet						
The Wood Flooring Requires Replacement	Capital Renewal	500	SF	3	$17,281	8771
Location: Stairwell and gym						
Paint (probable pre-1978 in base (layers(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	165	Ea.	4	$49,020	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	1,576	LF	4	$37,457	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	460	SF	4	$4,555	Rollup
Room Is Excessively Reverberant	Acoustics	18,000	SF	4	$418,901	27981
Location: Classrooms						
Room Is Excessively Reverberant	Acoustics	4,500	SF	4	$104,725	27982
Location: Gym						

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	9,386	SF	4	$357,644	Rollup
The Gypsum Board Ceilings Require Replacement	Capital Renewal	20	SF	4	$238	9235
Wall/ceiling materials - area < 9 sq. ft. AND in children-accessible area	Hazardous Material	33	SF	4	$327	Rollup
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$2,282	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	36,732	SF	5	$252,814	Rollup
The Gypsum Board Ceilings Require Repainting	Capital Renewal	10,000	SF	5	$43,574	Rollup
	Sub Total for System	**17**	**items**		**$1,443,675**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Cast Iron Water Boiler Requires Replacement	Capital Renewal	2	Ea.	2	$377,102	8782
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	38,600	SF	2	$309,934	8783
Small HVAC Circulating Pump Requires Replacement	Capital Renewal	2	Ea.	4	$19,854	8781
Remove Abandoned Equipment	Capital Renewal	1	Ea.	5	$3,260	9236
Note: 100 gallon water heater						
	Sub Total for System	**4**	**items**		**$710,149**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Mounted Building Lighting Requires Replacement	Capital Renewal	10	Ea.	3	$15,548	8774
Room Has Insufficient Electrical Outlets	Educational Adequacy	88	Ea.	5	$43,671	Rollup
	Sub Total for System	**2**	**items**		**$59,219**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Existing Lavatory/Sink Pipes Are Not Insulated Correctly	Barrier to Accessibility	8	LF	3	$396	8776
Location: Lower level boy's restroom						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	38,600	SF	3	$323,512	8780
The Restroom Is Not ADA Compliant	Barrier to Accessibility	140	SF	3	$40,669	8775
Location: 2nd floor office restroom						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	6	Ea.	4	$46,109	8779
Room lacks a drinking fountain.	Educational Adequacy	10	Ea.	5	$11,028	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	7	Ea.	5	$7,619	Rollup
	Sub Total for System	**6**	**items**		**$429,333**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	1	Ea.	3	$5,704	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	234	Ea.	3	$115,866	18404
Technology: Campus wireless infrastructure inadequate.	Technology	25	Ea.	3	$34,661	18406
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	20	Ea.	3	$415,930	18410
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1	Ea.	3	$20,797	18412
Technology: Instructional spaces do not have local sound reinforcement.	Technology	21	Ea.	3	$103,982	18415
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,932	18402
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$52,288	18400

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Main Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$9,408	18401
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	164	Ea.	3	$73,085	18405
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	72	Ea.	3	$32,086	18411
Technology: Network system inadequate and/or near end of useful life	Technology	25	Ea.	3	$123,789	18414
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	38,673	SF	3	$68,937	18413
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$56,448	18407
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$7,922	18403
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	23	Ea.	3	$36,443	18408
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,526	18409
	Sub Total for System	**17**	**items**		**$1,171,805**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	2	Ea.	3	$9,127	Rollup
	Sub Total for System	**1**	**items**		**$9,127**	
	Sub Total for Building 01 - Main Building	**48**	**items**		**$3,892,629**	
	Total for Campus	**55**	**items**		**$4,086,951**	

Guiteras School - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	19,300	SF	$174,310	3
Suspended Plaster and	Painted ceilings	9,300	SF	$38,903	3
	Sub Total for System	**2**	**items**	**$213,213**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Decentralized Heating Equipment	Heating Unit Vent - Steam/Hot water	14	Ea.	$236,807	3
Exhaust Air	Kitchen Exhaust Hoods	1	Ea.	$15,964	3
Exhaust Air	Roof Exhaust Fan	3	Ea.	$15,612	3
Heating System Supplementary Components	Controls - DDC (Bldg.SF)	38,600	SF	$232,420	3
HVAC Air Distribution	Roof Top Unit - DX Gas (5 Ton)	1	Ea.	$19,398	4
	Sub Total for System	**5**	**items**	**$520,202**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Light Fixtures (Bldg SF)	38,600	SF	$229,356	3
	Sub Total for System	**1**	**items**	**$229,356**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Building Support Plumbing System Supplementary Components	Sump Pump	1	Ea.	$1,449	3
Fuel Storage Tanks	Above Ground Fuel Oil StorageTank (275 Gal)	1	Ea.	$475	5
Note:	80 gallon				
Domestic Water Equipment	Gas Piping System (BldgSF)	38,600	SF	$835,742	5
	Sub Total for System	**3**	**items**	**$837,667**	

Fire and Life Safety

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm	38,600	SF	$113,137	3
	Sub Total for System	**1**	**items**	**$113,137**	
	Sub Total for Building 01 - Main Building	**12**	**items**	**$1,913,573**	
	Total for: Guiteras School	**12**	**items**	**$1,913,573**	

Supporting Photos



Site Aerial



Gymnasium



Aged Piping



Library


Play Area


Stained Ceiling Tile


Art Classroom


Circulating Pump


Worn Carpet


Elevation


Cracked And Chipped VCT Flooring


Cracked And Separating VCT


Boilers


Cafeteria


Restroom Fixtures And Finishes


Building Mounted Lighting



Main Entrance



Cracked Interior Wall



Site Signage



Classroom



Peeling Wall Paint



Stage In Gymnasium


Roof Condition


Computer Lab


Asphalt Parking


Missing Lavatory Pipe Insulation


Non-Compliant Restroom

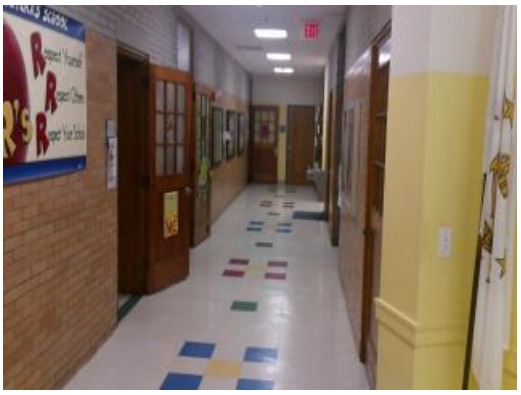

Concrete Spalling



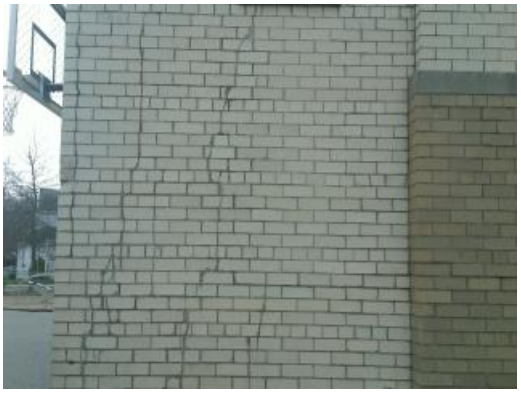
Paint Bubbled On Ceiling



Refrigerated Water Fountain



Hallway Finishes



Cracks In Exterior Brick

Facility Condition Assessment

Bristol Warren - Hugh Cole School | *June 2017*

50 Asylum Road, Bristol, RI 02809



Introduction

Hugh Cole School, located at 50 Asylum Road in Bristol, Rhode Island, was built in 1968. It comprises 84,536 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Hugh Cole School serves grades PK - 5, has 47 instructional spaces, and has an enrollment of 674. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Hugh Cole School is 780 with a resulting utilization of 86%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Hugh Cole School the 5-year need is $7,256,649. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

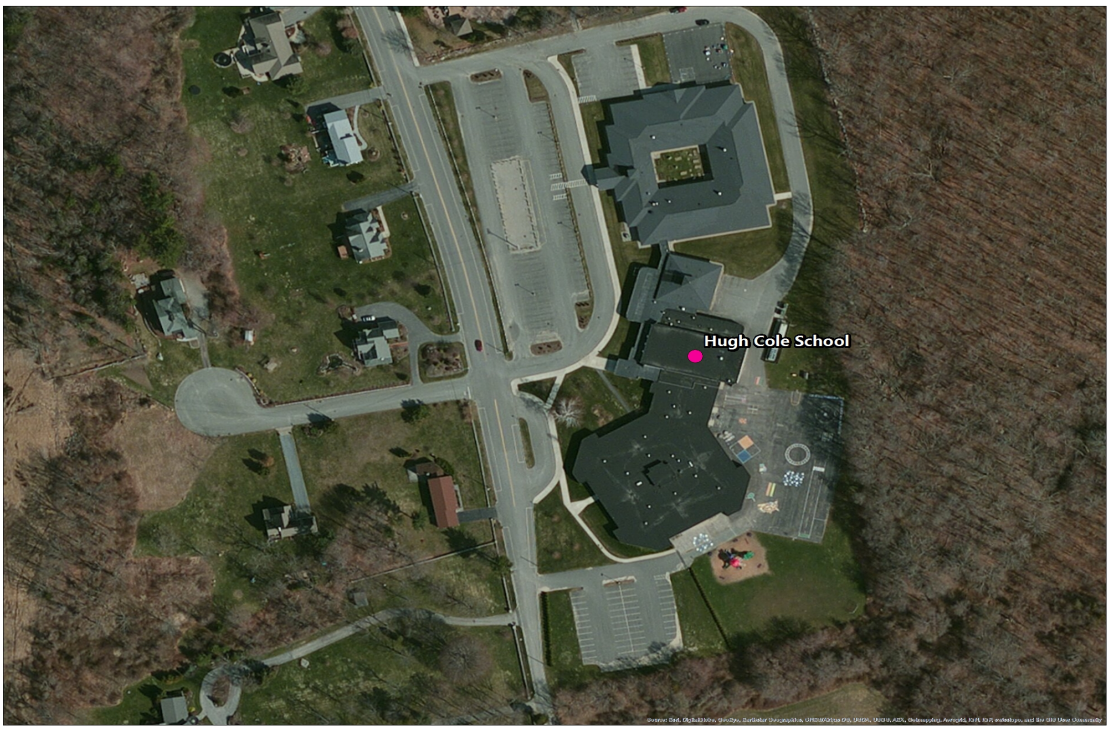


Figure 1: Aerial view of Hugh Cole School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Hugh Cole School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	CMU Exterior Wall
	Metal Panel Exterior Wall
	Steel Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	EPDM Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Foldable Interior Partition
	Steel Interior Doors
	Aluminum/Glass Storefront Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	CMU Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Terrazzo Flooring
	Carpet

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	1,275 MBH Cast Iron Water Boiler
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	DDC Heating System Controls
	Pneumatic Heating System Controls
	20 Ton Outdoor Air Cooled Chiller
	3 Ton Outside Air Cooled Condenser
	3 Ton D/X Fan Coil
	25 HP VFD
	2-Pipe Hot Water Hydronic Distribution System
	1 HP or Smaller Pump
	5 HP Pump
	Roof Exhaust Fan
	Kitchen Exhaust Hoods
	Fire Sprinkler System

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	60 Gallon Gas Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
	Air Compressor (5 hp)

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	1,600 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	600 Amp Distribution Panel
	Light Fixtures
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$23,872	$609,994	$5,807	$639,673	9.92 %
Roofing	-	-	-	-	-	$0	0.00 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$12,748	-	-	-	$12,748	0.20 %
Interior	-	-	$507,853	$1,404,562	$6,738	$1,919,152	29.77 %
Mechanical	-	$878,045	-	$536,737	-	$1,414,783	21.94 %
Electrical	-	$315,881	-	-	$88,726	$404,607	6.28 %
Plumbing	-	-	$348,498	$106,661	$32,744	$487,903	7.57 %
Fire and Life Safety	-	-	-	-	-	$0	0.00 %
Technology	-	-	$1,466,315	-	-	$1,466,315	22.74 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$4,533	$88,900	$8,499	$101,931	1.58 %
Total	$0	$1,206,674	$2,351,071	$2,746,853	$142,514	$6,447,112	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Interior	-	$1,919,152
Technology	-	$1,466,315
Mechanical	-	$1,414,783

The chart below represents the building systems and associated deficiency costs.

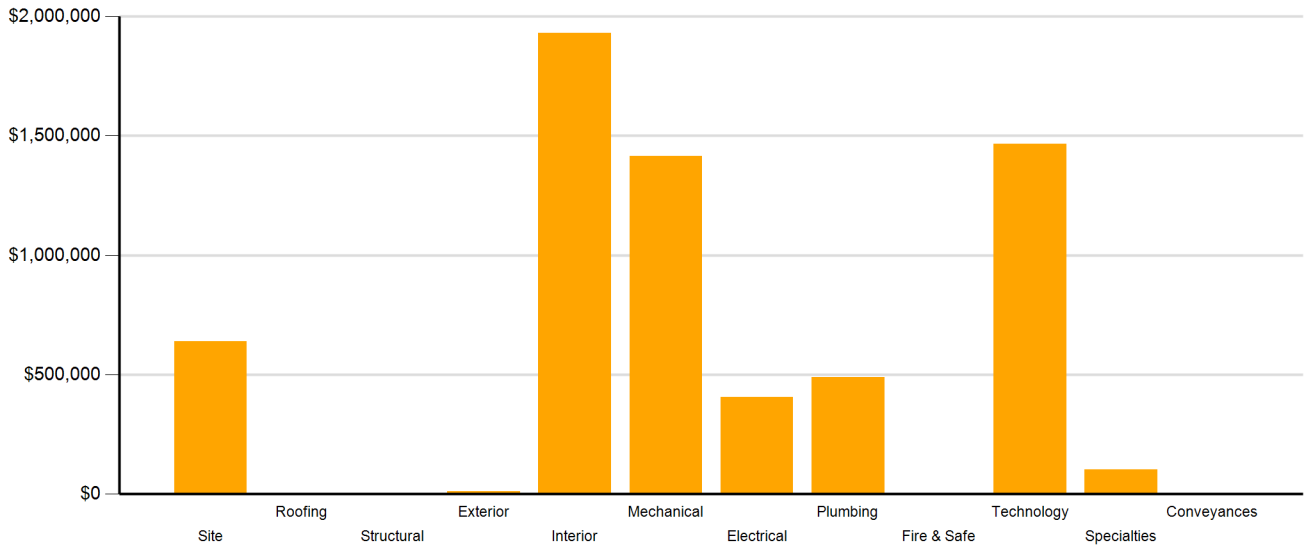


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	-	-	$0
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$1,206,674	$856,351	$1,837,853	$3,281	$3,904,160
Code Compliance	-	-	-	-	-	$0
Educational Adequacy	-	-	$10,198	$846,477	$139,232	$995,908
Functional Deficiency	-	-	-	-	-	$0
Hazardous Material	-	-	-	$62,524	-	$62,524
Technology	-	-	$1,460,650	-	-	$1,460,650
Traffic	-	-	$23,872	-	-	$23,872
Total	$0	$1,206,674	$2,351,071	$2,746,853	$142,514	$6,447,112

**Displayed totals may not sum exactly due to mathematical rounding*

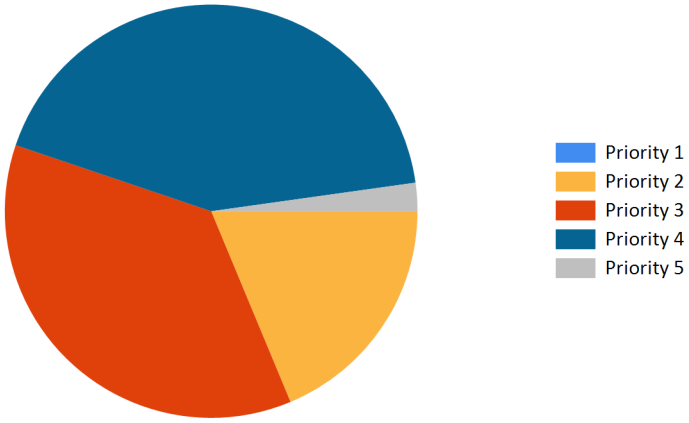


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$639,673	$0	$0	$0	$59,553	$0	$59,553	$699,226
Roofing	$0	$0	$0	$0	$0	$0	$0	$0
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$12,748	$0	$0	$0	$0	$121,974	$121,974	$134,722
Interior	$1,919,152	$0	$84,639	$10,878	$0	$272,584	$368,101	$2,287,253
Mechanical	$1,414,783	$0	$0	$0	$0	$0	$0	$1,414,783
Electrical	$404,607	$0	$0	$0	$0	$0	$0	$404,607
Plumbing	$487,903	$0	$0	$0	$0	$0	$0	$487,904
Fire and Life Safety	$0	$0	$0	$247,775	$0	$0	$247,775	$247,775
Technology	$1,466,315	$0	$0	$0	$0	$0	$0	$1,466,315
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$101,931	$0	$0	$0	$0	$0	$0	$101,931
Total	**$6,447,112**	**$0**	**$84,639**	**$258,653**	**$59,553**	**$394,558**	**$797,403**	**$7,244,515**

**Displayed totals may not sum exactly due to mathematical rounding*

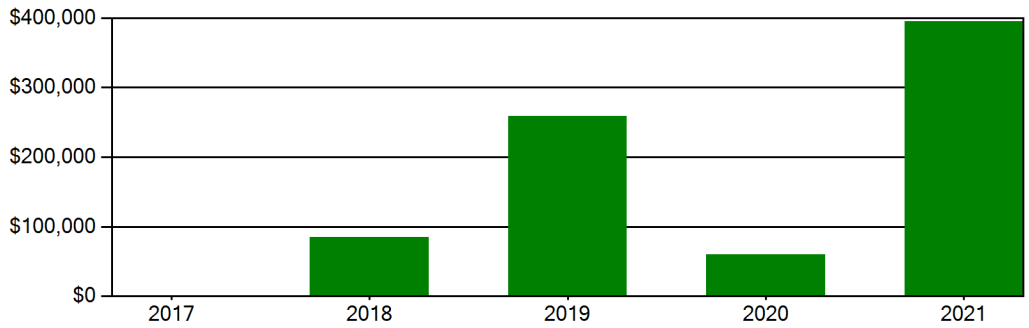
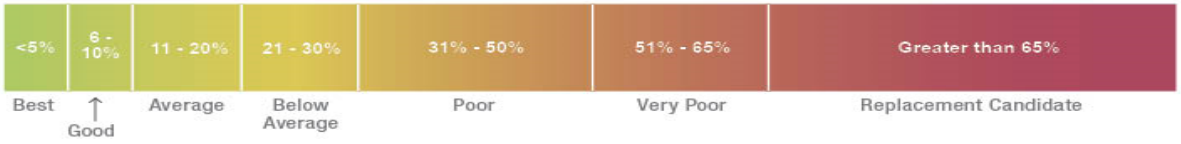


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $29,587,600. For planning purposes, the total 5-year need at the Hugh Cole School is $7,256,649 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Hugh Cole School facility has a 5-year FCI of 24.48%.

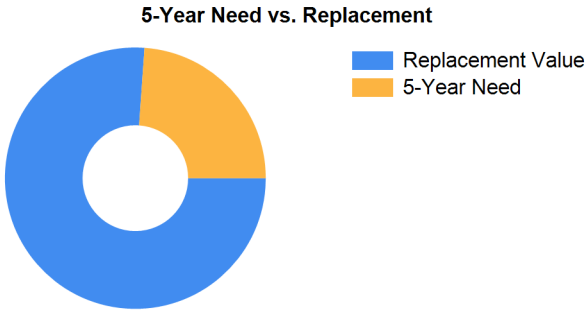


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 567 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Hugh Cole School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $424,116.

Summary of Findings

The Hugh Cole School comprises 84,536 square feet and was constructed in 1968. Current deficiencies at this school total $6,459,246. Five year capital renewal costs total $797,403. The total identified need for the Hugh Cole School (current deficiencies and 5-year capital renewal costs) is $7,256,649. The 5-year FCI is 24.48%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Hugh Cole School Totals	84,536	1968	$6,459,246	$797,403	$7,256,649	24.48%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Crosswalk: Needs to be added	Traffic	1	Ea.	3	$755	9302
Note: Install crosswalk across parking lot to proposed sidewalk location						
New Sidewalk Is Required	Traffic	1,020	SF	3	$23,116	9301
Note: Install sidewalk from north edge of parking lot to existing neighborhood sidewalk (6' wide)						
Asphalt Paving Requires Replacement	Capital Renewal	177	CAR	4	$581,665	8421
Note: North East rear lot by paly area has large damaged area. West lot has several cracks, and alligatoring.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28410
Note: Backstops Require Replacement						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,807	28691
Note: Exterior Basketball Goals are Required						
	Sub Total for System	**5**	**items**		**$639,673**	
	Sub Total for School and Site Level	**5**	**items**		**$639,673**	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	2	Door	2	$12,748	8423
Note: Door by room 01 and door by room 02						
	Sub Total for System	**1**	**items**		**$12,748**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	42,268	SF	3	$379,178	8424
Note: Replace in older portion of building.						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	900	SF	3	$8,074	8425
Note: New wing of school, several stained tiles: cafeteria, room 71, 75, 61, 57, 54, 52, 53, 51, 48, west corridor, 47, and nurse room.						
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	2,500	SF	3	$66,682	8428
Note: Mary wing restroom floors are in need of repair.						
The Terrazzo Flooring Requires Replacement	Capital Renewal	500	SF	3	$36,828	8432
Note: Cracks in terrazzo flooring by gym.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	500	SF	3	$5,697	8426
Note: Cracked tiles in south corridor.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	1,000	SF	3	$11,394	8427
Note: Damaged VCT in north and east entry vestibule, cracked VCT north corridor, room 67						
Ceiling Grid Requires Replacement	Capital Renewal	42,268	SF	4	$497,944	8716
Interior Ceramic Walls Require Repair Or Replacement	Capital Renewal	1,200	SF	4	$26,516	8444
Note: Damaged in both boys and girls restrooms.						
Paint (probable pre-1978 in base (layers(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - each)	Hazardous Material	173	Ea.	4	$49,009	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - linear feet)	Hazardous Material	102	LF	4	$2,312	Rollup
Paint (probable pre-1978 in base layer(s)) - large areas (> 10 sq. ft.) of peeling/damage & area in active use - children (measurement unit - square feet)	Hazardous Material	121	SF	4	$1,143	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. AND NOT in children-accessible area (measurement unit - each)	Hazardous Material	1	Ea.	4	$283	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. AND NOT in children-accessible area (measurement unit - linear feet)	Hazardous Material	36	LF	4	$816	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. AND NOT in children-accessible area (measurement unit - square feet)	Hazardous Material	875	SF	4	$8,263	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	21,602	SF	4	$817,578	Rollup
Wall/ceiling materials - area < 9 sq. ft. AND in children-accessible area	Hazardous Material	74	SF	4	$699	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	500	SF	5	$3,281	Rollup

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks appropriate sound control.	Educational Adequacy	100	SF	5	$3,456	Rollup
	Sub Total for System	**18**	**items**		**$1,919,152**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Replace Unit Vent	Capital Renewal	33	Ea.	2	$554,430	8443
Note: Original.						
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	42,268	SF	2	$323,616	8438
Note: Half of the piping in the school needs to be replaced.						
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	80,000	SF	4	$536,737	8441
Note: Part of the original 1968 section. Needs to be upgraded.						
	Sub Total for System	**3**	**items**		**$1,414,783**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Distribution Panel Requires Replacement	Capital Renewal	1	Ea.	2	$28,933	8439
Note: FPE panel, Past life expectancy, needs replacement.						
The Lighting Fixtures Require Replacement	Capital Renewal	42,268	SF	2	$249,459	8440
Note: Replace lighting in the older half of school.						
The Panelboard Requires Replacement	Capital Renewal	3	Ea.	2	$14,448	8436
Note: In the old part of building						
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$23,041	8437
Note: In the old part of building, replace.						
Room Has Insufficient Electrical Outlets	Educational Adequacy	180	Ea.	5	$88,726	Rollup
	Sub Total for System	**5**	**items**		**$404,607**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	42,286	SF	3	$337,937	8435
Note: Half of the school has not been renovated. Replace piping in old half.						
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	8	Ea.	3	$10,561	8433
Note: Replace in original part of school.						
Floor Drains Are Required	Educational Adequacy	1	Ea.	4	$570	Rollup
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	2	Ea.	4	$5,118	8431
Note: Replace in original part of the building						
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	3	Ea.	4	$21,983	8434
Note: Replace in older portion of building.						
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	25	Ea.	4	$78,990	8429
Note: Replace in older portion of the building.						
Room lacks a drinking fountain.	Educational Adequacy	16	Ea.	5	$17,526	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	14	Ea.	5	$15,218	Rollup
	Sub Total for System	**8**	**items**		**$487,903**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	1	Ea.	3	$5,666	Rollup
Technology: Auditorium AV/Multimedia system is in need of minor improvements.	Technology	1	Room	3	$94,430	18364
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	336	Ea.	3	$158,642	18361
Technology: Campus wireless infrastructure inadequate.	Technology	25	Ea.	3	$33,050	18362

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	22	Ea.	3	$436,264	18367
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1	Ea.	3	$19,830	18369
Technology: Instructional spaces do not have local sound reinforcement.	Technology	23	Ea.	3	$108,594	18373
Technology: Intermediate Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$24,174	18360
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,610	18358
Technology: Main Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$29,084	18356
Technology: Main Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$8,971	18357
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	431	Ea.	3	$183,146	18363
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	96	Ea.	3	$40,794	18368
Technology: Network system inadequate and/or near end of useful life	Technology	24	Ea.	3	$113,315	18371
Technology: Network system inadequate and/or near end of useful life	Technology	1	Ea.	3	$7,554	18372
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	84,536	SF	3	$143,688	18370
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$7,554	18359
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	25	Ea.	3	$37,772	18365
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,177	18366
	Sub Total for System	**19**	**items**		**$1,466,315**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	$4,533	Rollup
Replace Cabinetry In Classes/Labs	Capital Renewal	8	Room	4	$88,900	9263
Room lacks an appropriate refrigerator.	Educational Adequacy	1	Ea.	5	$8,499	Rollup
	Sub Total for System	**3**	**items**		**$101,931**	
	Sub Total for Building 01 - Main Building	**57**	**items**		**$5,807,440**	
	Total for Campus	**62**	**items**		**$6,447,112**	

Hugh Cole School - Life Cycle Summary Yrs 1-5

Site Level Life Cycle Items

Site

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Roadway Pavement	Asphalt		18	CAR	$59,553	4
		Sub Total for System	**1**	**items**	**$59,553**	
		Sub Total for Building -	**1**	**items**	**$59,553**	

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Metal Panel - Bldg SF basis		1,283	SF	$121,974	5
	Note: Original school					
		Sub Total for System	**1**	**items**	**$121,974**	

Interior

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)		4,270	SF	$28,213	2
	Note: New wing of school					
Wall Painting and Coating	Painting/Staining (Bldg SF)		4,270	SF	$28,213	2
	Note: Original wing of school					
Wall Painting and Coating	Painting/Staining (Bldg SF)		4,270	SF	$28,213	2
	Note: Original wing of school					
Carpeting	Carpet		500	SF	$10,878	3
Interior Operable Partitions	Foldable partition (Bldg SF)		2,280	SF Wall	$263,362	5
Interior Swinging Doors	Wood		2	Door	$9,222	5
	Note: Library has 2 6'x8' sliding glass door, wood frame.					
		Sub Total for System	**6**	**items**	**$368,102**	

Fire and Life Safety

Uniformat Description	LC Type Description		Qty	UoM	Repair Cost	Remaining Life
Fire Detection and Alarm	Fire Alarm		84,536	SF	$247,775	3
		Sub Total for System	**1**	**items**	**$247,775**	
		Sub Total for Building 01 - Main Building	**8**	**items**	**$737,851**	
		Total for: Hugh Cole School	**9**	**items**	**$797,405**	

Supporting Photos


North Parking Alligator Cracking


Stained Ceiling Tile


Corridor


225 Amp Panel


100 Amp Panel


Electric Panel


Piping


Cabinet Unit Ventilator


Lighting


Damaged VCT


Stained Tile


VCT


Cracked VCT



Lobby


Door Damage


East Parking Cracking


Ceramic Tile Damage


East Parking Cracking


VCT


Classroom


Restroom Floor


Piping


Service Sink


Damage Tile Wall


Water Fountain


VCT


Lockers


Restroom Sink


Play Area


Urinals


Computer Lab


Corridor


Site Aerial


Music


Cafeteria


Entry



Gym


Restroom



Plaque


Library

Facility Condition Assessment

Bristol Warren - Kickemuit Middle School | *June 2017*

525 Child Street, Warren, RI 02885



Introduction

Kickemuit Middle School, located at 525 Child Street in Warren, Rhode Island, was built in 1958. It comprises 149,915 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Kickemuit Middle School serves grades 6 - 8, has 74 instructional spaces, and has an enrollment of 753. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Kickemuit Middle School is 879 with a resulting utilization of 86%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Kickemuit Middle School the 5-year need is $16,193,355. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.



Figure 1: Aerial view of Kickemuit Middle School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Kickemuit Middle School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Asphalt Pedestrian Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	CMU Exterior Wall
	Glass Block Exterior Wall
	Steel Exterior Windows
	Storefront / Curtain Wall
	Steel Exterior Entrance Doors
02 - Maintenance Shop:	Metal Panel Exterior Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
03 - Shed:	Wood Siding Exterior Wall
	Wood Exterior Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	EPDM Roofing
	Built-Up Roofing With Ballast
02 - Maintenance Shop:	Metal Low-Slope Roofing
03 - Shed:	Composition Shingle Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Wood Ceilings

01 - Main Building:	Ceramic Tile Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Rubber Tile Flooring
	Vinyl Composition Tile Flooring
	Terrazzo Flooring
	Carpet
	Athletic/Sport Flooring
02 - Maintenance Shop:	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Interior Wall Painting
	Concrete Flooring
03 - Shed:	Wood Ceilings
	Interior Wall Painting
	Wood Flooring

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	4,200 MBH Cast Iron Steam Boiler
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	3 kW Electric Unit Heater
	DDC Heating System Controls
	1 Ton Ductless Split System
	2-Pipe Steam Hydronic Distribution System
	5,000 CFM Outdoor AHU
	10,000 CFM Outdoor AHU
	8,000 CFM Energy Recovery Unit
	Roof Exhaust Fan
	Fire Sprinkler System
02 - Maintenance Shop:	5 kW Electric Unit Heater

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	2" Backflow Preventers
	Gas Piping System
	80 Gallon Electric Water Heater

01 - Main Building:	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
	Sump Pump

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	1200 kW Emergency Generator
	1,200 Amp Switchgear
	1,600 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	600 Amp Distribution Panel
	Light Fixtures
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
02 - Maintenance Shop:	Panelboard - 120/208 225A
	Building Mounted Lighting Fixtures
	Light Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$44,815	$598,057	$5,807	$648,680	4.40 %
Roofing	-	$543,914	$198	-	-	$544,112	3.69 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$82,841	$62,746	-	-	$145,587	0.99 %
Interior	-	-	$2,344,945	$2,751,171	$940,813	$6,036,930	40.91 %
Mechanical	-	$1,575,847	$488,561	-	-	$2,064,409	13.99 %
Electrical	-	$69,059	$59,066	-	$132,999	$261,123	1.77 %
Plumbing	-	-	$1,165,358	$88,529	$18,710	$1,272,597	8.62 %
Fire and Life Safety	$470,156	-	-	-	-	$470,156	3.19 %
Technology	-	-	$2,473,391	-	-	$2,473,391	16.76 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$9,127	$821,402	$8,556	$839,085	5.69 %
Total	$470,156	$2,271,661	$6,648,207	$4,259,160	$1,106,886	$14,756,069	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Interior	-	$6,036,930
Technology	-	$2,473,391
Mechanical	-	$2,064,409

The chart below represents the building systems and associated deficiency costs.

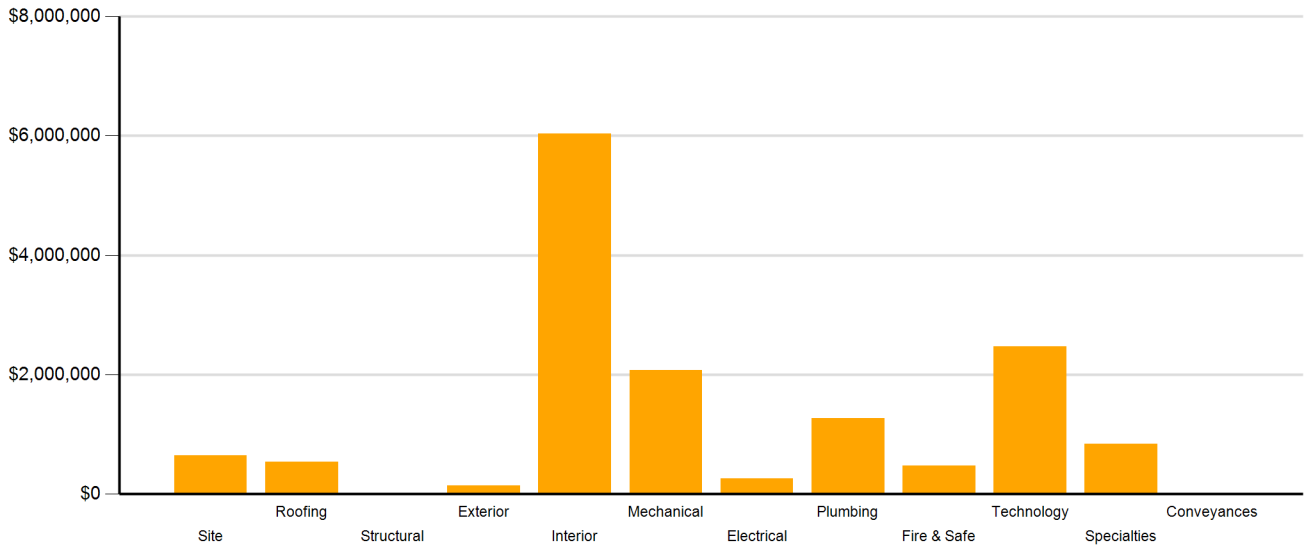


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	$488,561	$191,019	-	$679,580
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$2,271,661	$3,618,062	$3,916,359	$940,813	$10,746,895
Code Compliance	$424,523	-	-	-	-	$424,523
Educational Adequacy	$45,633	-	$14,831	$119,626	$166,072	$346,163
Functional Deficiency	-	-	$59,066	-	-	$59,066
Hazardous Material	-	-	-	$32,156	-	$32,156
Technology	-	-	$2,467,686	-	-	$2,467,686
Traffic	-	-	-	-	-	$0
Total	$470,156	$2,271,661	$6,648,207	$4,259,160	$1,106,886	$14,756,069

**Displayed totals may not sum exactly due to mathematical rounding*

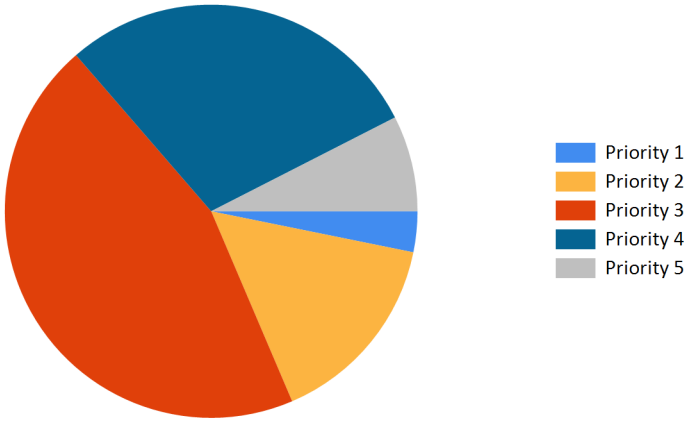


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$648,680	$0	$0	$0	$0	$0	$0	$648,680
Roofing	$544,112	$0	$0	$0	$0	$0	$0	$544,112
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$145,587	$0	$0	$0	$0	$0	$0	$145,587
Interior	$6,036,930	$34,000	$0	$0	$0	$37,372	$71,372	$6,108,302
Mechanical	$2,064,409	$0	$0	$1,228,517	$0	$0	$1,228,517	$3,292,926
Electrical	$261,123	$0	$0	$117,796	$0	$0	$117,796	$378,919
Plumbing	$1,272,597	$0	$0	$5,655	$0	$1,449	$7,104	$1,279,701
Fire and Life Safety	$470,156	$0	$0	$0	$0	$0	$0	$470,156
Technology	$2,473,391	$0	$0	$0	$0	$0	$0	$2,473,391
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$839,085	$0	$0	$0	$0	$0	$0	$839,085
Total	**$14,756,069**	**$34,000**	**$0**	**$1,351,968**	**$0**	**$38,821**	**$1,424,789**	**$16,180,858**

**Displayed totals may not sum exactly due to mathematical rounding*

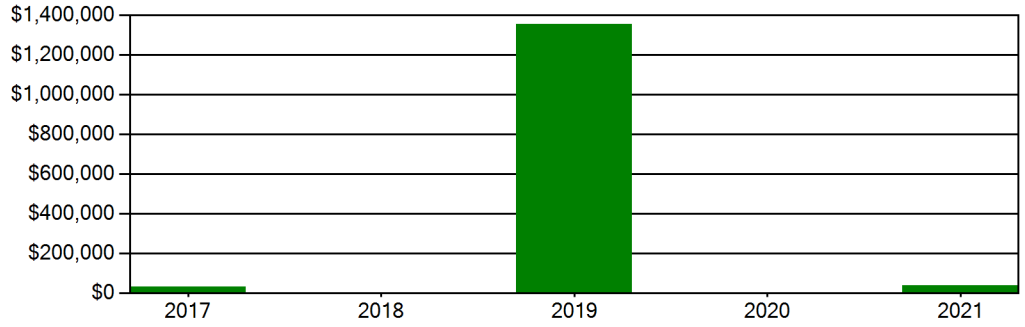
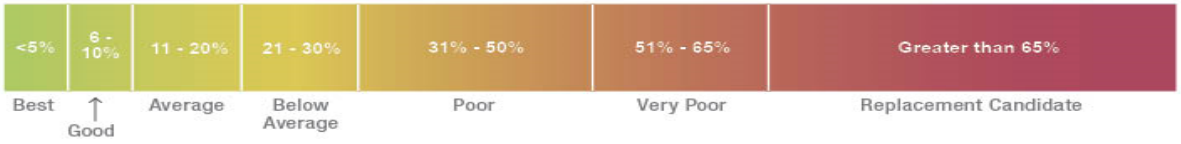


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $49,471,952. For planning purposes, the total 5-year need at the Kickemuit Middle School is $16,193,355 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Kickemuit Middle School facility has a 5-year FCI of 32.71%.

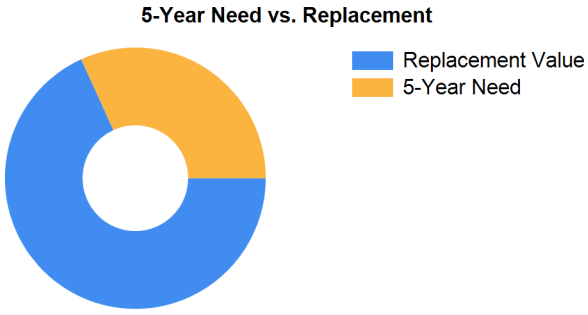


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 824 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Kickemuit Middle School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $761,627.

Summary of Findings

The Kickemuit Middle School comprises 149,915 square feet and was constructed in 1958. Current deficiencies at this school total $14,768,566. Five year capital renewal costs total $1,424,789. The total identified need for the Kickemuit Middle School (current deficiencies and 5-year capital renewal costs) is $16,193,355. The 5-year FCI is 32.71%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Kickemuit Middle School Totals	149,915	1958	$14,768,566	$1,424,789	$16,193,355	32.71%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

LEA Feedback

As part of the assessment process, LEAs were given several opportunities to provide feedback on the data. Jacobs performed a thorough review of the comments provided relating to the Facilities Condition Assessment. Based on information provided, some adjustments were made to improve or refine the dataset. In other situations, enough information was not provided, item was out of scope, or evidence provided by assessment team did not align with the feedback and no adjustment was made. Finally, deficiency priorities, costs, and educational space/technology standards are consistent throughout the state.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Walks Require Replacement	Capital Renewal	5,280	SF	3	$44,815	8901
Note: Beyond useful life. Several large cracks, these cracks are a trip hazard.						
Asphalt Paving Requires Replacement	Capital Renewal	147	CAR	4	$483,077	8899
Note: Beyond useful life. Several large cracks, several areas of alligatoring, potholes. Several trip hazards. Asphalt also requires sealcoating.						
Asphalt Paving Requires Replacement	Capital Renewal	25	CAR	4	$82,156	8900
Note: Beyond useful life.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28408
Note: Backstops Require Replacement						
Fencing Requires Replacement (4' Chain Link Fence)	Capital Renewal	70	LF	4	$4,495	8898
Note: Over life cycle						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,807	28690
Note: Exterior Basketball Goals are Required						
	Sub Total for System	**6**	**items**		**$648,680**	

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Asphalt Shingle Roof Covering Requires Replacement	Capital Renewal	24,000	SF	2	$543,914	8902
Note: Several leaks in rooms under low sloping asphalt. Rooms with leaks: 111, 111C, 113, 115, 119, 141, 144, 146, 148, 149, 151,155, Book storage. 1st floor corridor outside room 114						
	Sub Total for System	**1**	**items**		**$543,914**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Pole Lighting Is Missing And Needed	Functional Deficiency	3	Ea.	3	$59,066	8903
Note: Need more lights in parking lot.						
	Sub Total for System	**1**	**items**		**$59,066**	
	Sub Total for School and Site Level	**8**	**items**		**$1,251,660**	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Roof Drains Require Cleaning	Capital Renewal	5	Ea.	3	$198	8907
	Sub Total for System	**1**	**items**		**$198**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Glass Wall Requires Replacement (Bldg SF)	Capital Renewal	250	SF	2	$42,781	8928
Note: Glass wall in gym has broken glass blocks						
The Glass Pane In The Steel Exterior Window Requires Replacement	Capital Renewal	48	SF	2	$22,794	8906
Note: 2 4'x6' glass panes are damaged. 1 in assistant principals office, 1 in main office						
The Brick Exterior Requires Repointing	Capital Renewal	1,500	SF Wall	3	$62,746	8914
Note: Several areas require Repointing, possibly could be the cause of leaks.						
	Sub Total for System	**3**	**items**		**$128,321**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior CMU Walls Require Repair	Capital Renewal	3,000	SF	3	$108,950	8922
Note: Cracks in CMU located in rooms: 114, 212, work room, 246, in corridor walls by rooms, 124, 221, 224, 255. Holes in mechanical room.						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	128,839	SF	3	$1,163,625	8908
Note: Several damaged and stained ceiling tiles throughout school. Whole system should be replaced.						
The Carpet Flooring Requires Replacement	Capital Renewal	3,357	SF	3	$73,036	8909
Note: Carpet installed in 1997						
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	250	SF	3	$6,713	8911
Note: Restroom floors.						

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Interior Door Hardware Requires Replacement	Capital Renewal	1	Door	3	$3,137	8916
Note: Missing hardware in main office						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	86,254	SF	3	$989,484	8910
Note: Several areas of damage, replace whole system.						
Interior Ceramic Walls Require Repair Or Replacement	Capital Renewal	800	SF Wall	4	$21,296	8913
Note: Most Restrooms have damage to ceramic tile walls.						
Interior Gypsum Board Walls Require Repair	Capital Renewal	500	SF Wall	4	$3,654	8904
Note: Cracks in gypboard above lockers 327, 173, 123, 111, 97, 81, 767, 705, 651, 639, 621, 607.						
Moveable Partitions Require Replacement	Capital Renewal	3,840	SF Wall	4	$443,557	8905
Note: Partition has a tear in fabric, room 117. Additional partitions old and obsolete.						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	4	Ea.	4	$1,141	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	276	LF	4	$6,297	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	2,600	SF	4	$24,718	Rollup
Room Is Excessively Reverberant	Acoustics	8,550	SF	4	$191,019	27950
Location: Gym						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	2,396	SF	4	$91,297	Rollup
The Terrazzo Flooring Requires Repair	Capital Renewal	36,966	SF	4	$1,968,192	8915
Note: Several large cracks in terrazzo floor. All corridors have cracks, cracks in rooms.						
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	142,389	SF	5	$940,813	Rollup
	Sub Total for System	**16**	**items**		**$6,036,930**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Boiler HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$455,325	8912
Note: Replace						
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	144,839	SF	2	$1,116,447	8923
Unit Ventilators Are Excessively Noisy	Acoustics	77	Ea.	3	$488,561	27949
Location: Classrooms						
	Sub Total for System	**3**	**items**		**$2,060,333**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Switchgear Is Needed Or Requires Replacement	Capital Renewal	1	Ea.	2	$69,059	8924
Room Has Insufficient Electrical Outlets	Educational Adequacy	268	Ea.	5	$132,999	Rollup
	Sub Total for System	**2**	**items**		**$202,058**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	144,839	SF	3	$1,165,358	8921
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	12	Ea.	4	$88,529	8920
Room lacks a drinking fountain.	Educational Adequacy	6	Ea.	5	$6,617	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	8	Ea.	5	$12,093	Rollup
	Sub Total for System	**4**	**items**		**$1,272,597**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Alarm Is Missing Or Inadequate (NFPA 72 and NFPA 101, Section 9.6)	Code Compliance	144,839	SF	1	$424,523	8918
Room lacks shut-off valves for utilities. (International Fuel Gas Code, Section 409.6)	Educational Adequacy	4	Ea.	1	$45,633	Rollup
	Sub Total for System	**2**	**items**		**$470,156**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	1	Ea.	3	$5,704	Rollup
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	24	Ea.	3	$11,408	18441
Technology: Campus wireless infrastructure inadequate.	Technology	55	Ea.	3	$73,204	18439
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	50	Ea.	3	$998,232	18446
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1	Ea.	3	$19,965	18447
Technology: Gymnasium sound system is nonexistent, inadequate, or near end of useful life.	Technology	1	Ea.	3	$9,127	18443
Technology: Instructional spaces do not have local sound reinforcement.	Technology	51	Ea.	3	$242,428	18451
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	5	Ea.	3	$26,620	18437
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18435
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	4	Ea.	3	$66,929	18434
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	5	Ea.	3	$23,767	18436
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	18433
Technology: Main Telecommunications Room needs M/E improvements.	Technology	1	Ea.	3	$29,281	18432
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	615	Ea.	3	$263,105	18442
Technology: Network system inadequate and/or near end of useful life	Technology	55	Ea.	3	$261,442	18449
Technology: Network system inadequate and/or near end of useful life	Technology	3	Ea.	3	$22,817	18450
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	144,839	SF	3	$247,856	18448
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	5	Ea.	3	$23,767	18438
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	2	Ea.	3	$12,549	18440
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	55	Ea.	3	$83,661	18444
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,225	18445
	Sub Total for System	**21**	**items**		**$2,473,391**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	2	Ea.	3	$9,127	Rollup
The Retractable Bleachers Require Replacement	Capital Renewal	720	Seat	4	$821,402	8917
Room lacks an appropriate refrigerator.	Educational Adequacy	1	Ea.	5	$8,556	Rollup
	Sub Total for System	**3**	**items**		**$839,085**	
	Sub Total for Building 01 - Main Building	**55**	**items**		**$13,483,068**	

Building: 02 - Maintenance Shop

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Electric Unit Heater Requires Replacement	Capital Renewal	3	Ea.	2	$4,076	8929
Note: Past life expectancy, needs replacement.						
	Sub Total for System	**1**	**items**		**$4,076**	
	Sub Total for Building 02 - Maintenance Shop	**1**	**items**		**$4,076**	

Building: 03 - Shed

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	576	SF	2	$17,266	8930
Note: over life						
	Sub Total for System	**1**	**items**		**$17,266**	
	Sub Total for Building 03 - Shed	**1**	**items**		**$17,266**	
	Total for Campus	**65**	**items**		**$14,756,069**	

Kickemuit Middle School - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Resilient Flooring	Rubber Tile Flooring	1,820	SF	$34,000	1
	Sub Total for System	**1**	**items**	**$34,000**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exhaust Air	Roof Exhaust Fan	68	Ea.	$353,880	3
Heating System Supplementary Components	Controls - DDC (Bldg.SF)	144,839	SF	$872,110	3
Decentralized Heating Equipment	Unit Heater Electric (3 KW)	2	Ea.	$2,527	3
	Sub Total for System	**3**	**items**	**$1,228,517**	

Electrical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Electrical Service	Switchgear - Main Dist Panel (1600 Amps)	1	Ea.	$82,102	3
	Sub Total for System	**1**	**items**	**$82,102**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Domestic Water Equipment	Water Heater - Electric - 80 gallon	1	Ea.	$5,655	3
Note:	75 Gallon				
Building Support Plumbing System Supplementary Components	Sump Pump	1	Ea.	$1,449	5
	Sub Total for System	**2**	**items**	**$7,104**	
	Sub Total for Building 01 - Main Building	**7**	**items**	**$1,351,723**	

Building: 02 - Maintenance Shop

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	4,500	SF	$29,733	5
	Sub Total for System	**1**	**items**	**$29,733**	

Electrical

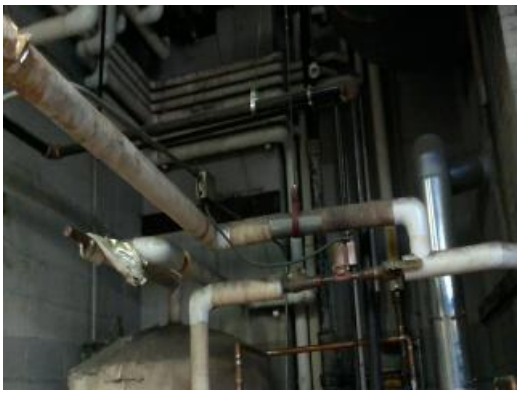
Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Lighting Fixtures	Building Mounted Fixtures (Ea.)	6	Ea.	$8,956	3
Lighting Fixtures	Light Fixtures (Bldg SF)	4,500	SF	$26,738	3
	Sub Total for System	**2**	**items**	**$35,694**	
	Sub Total for Building 02 - Maintenance Shop	**3**	**items**	**$65,427**	

Building: 03 - Shed

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	576	SF	$3,806	5
Specialty Suspended Ceilings	Ceiling - Wood	576	SF	$3,833	5
Note:	Exposed Wood				
	Sub Total for System	**2**	**items**	**$7,639**	
	Sub Total for Building 03 - Shed	**2**	**items**	**$7,639**	
	Total for: Kickemuit Middle School	**12**	**items**	**$1,424,789**	

Supporting Photos


Piping


CMU Crack


Elevation


Crack in CMU


CMU Holes


Switchboard


Piping


Alligatoring In Parking Lot Asphalt


Unit Ventilator


Trip Hazard


Large Trip Hazard


Cracks In Asphalt Sidewalk


Parking Lot Cracks


Roof


Asphalt Sidewalk Trip Hazard


Damaged Roof Covering


Active Leak Outside Room 232


Broken Glass (Gym)


Damaged Roof Covering


Corridor


Tear In Partition #1


Classroom



Site Aerial



Kitchen



Science lab



Gymnasium



Auditorium



Roof



Gymnasium


Restroom


Cafe


Restroom 2


Fintess Center



Marquee


Music


Auditorium


Boys locker room


Library


Art


Cracks In Gypsum Board


Computer lab


Glass Pane

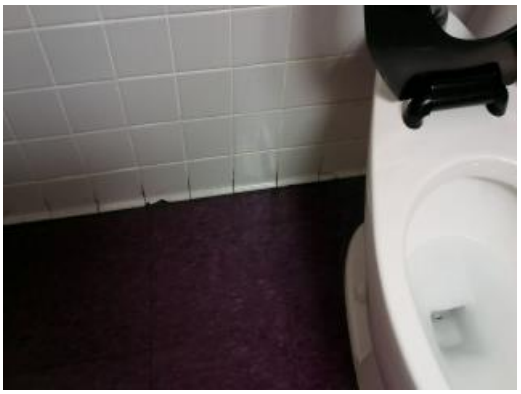

Roof


Stained Tiles


Damaged Glass Pane


Damaged VCT


Roof Drain


Restroom Flooring


Stained Tiles


Boilers


Cracked VCT


Damaged Wall


Restroom Flooring


Repoint


Damaged Wall


Cracked Terrazo


Repoint Brick


Water Fountain


Terrazzo Floor Damage


Maintenance Shop


Missing Hardware


Shed


Shop Interior

Facility Condition Assessment

Bristol Warren - Mt. Hope High School | *June 2017*

199 Chestnut Street, Bristol, RI 02809



Introduction

Mt. Hope High School, located at 199 Chestnut Street in Bristol, Rhode Island, was built in 1965. It comprises 177,732 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Mt. Hope High School serves grades 9 - 12, has 78 instructional spaces, and has an enrollment of 912. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Mt. Hope High School is 1,407 with a resulting utilization of 65%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Mt. Hope High School the 5-year need is $22,406,303. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.



Figure 1: Aerial view of Mt. Hope High School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Mt. Hope High School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Asphalt Pedestrian Pavement
	Concrete Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	CMU Exterior Wall
	Metal Panel Exterior Wall
	Aluminum Exterior Windows
	Storefront / Curtain Wall
	Storefront Entrance Doors
	Steel Exterior Entrance Doors
02 - Storage:	Wood Siding Exterior Wall
	Steel Exterior Entrance Doors
03 - Maintenance:	CMU Exterior Wall
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
04 - Storage:	Wood Siding Exterior Wall
	Steel Exterior Entrance Doors
05 - Storage:	Wood Siding Exterior Wall
	Overhead Exterior Utility Doors
06 - Concessions:	Wood Siding Exterior Wall
	Steel Exterior Windows
	Steel Exterior Entrance Doors
07 - Ticket Building:	Wood Siding Exterior Wall
	Vinyl on Wood Frame Exterior Windows
	Steel Exterior Entrance Doors
	Overhead Exterior Utility Doors
08 - Field Electrical Room:	Wood Siding Exterior Wall
	Steel Exterior Entrance Doors
09 - Portable A:	Wood Siding Exterior Wall
	Vinyl on Wood Frame Exterior Windows
	Steel Exterior Entrance Doors
10 - Building 10:	Wood Siding Exterior Wall
	Vinyl on Wood Frame Exterior Windows

10 - Building 10:	Storefront Entrance Doors
11 - Pump House:	CMU Exterior Wall
	Steel Exterior Entrance Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	EPDM Roofing
	Steel Canopy Roofing
02 - Storage:	Composition Shingle Roofing
03 - Maintenance:	Metal Steep Slope Roofing
04 - Storage:	Composition Shingle Roofing
05 - Storage:	Composition Shingle Roofing
06 - Concessions:	Composition Shingle Roofing
07 - Ticket Building:	Composition Shingle Roofing
08 - Field Electrical Room:	Composition Shingle Roofing
09 - Portable A:	Composition Shingle Roofing
10 - Building 10:	Clear Polycarbonate Roofing
11 - Pump House:	Composition Shingle Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Moveable Interior Partition
	Steel Interior Doors
	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Painted Ceilings
	Ceramic Tile Wall
	CMU Wall
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Wood Flooring
	Vinyl Composition Tile Flooring
	Terrazzo Flooring
	Carpet
	Athletic/Sport Flooring
02 - Storage:	Wood Ceilings
	Interior Wall Painting
	Wood Flooring
03 - Maintenance:	Wood Interior Doors

03 - Maintenance:	Overhead Interior Coiling Doors
	Interior Door Hardware
	Exposed Metal Structure Ceiling
	Wood Wall Paneling
	Concrete Flooring
04 - Storage:	Wood Ceilings
	Interior Wall Painting
	Wood Flooring
05 - Storage:	Wood Ceilings
	Interior Wall Painting
	Wood Flooring
06 - Concessions:	Wood Interior Doors
	Interior Door Hardware
	Wood Ceilings
	Interior Wall Painting
	Concrete Flooring
07 - Ticket Building:	Wood Ceilings
	Wood Wall Paneling
	Wood Flooring
08 - Field Electrical Room:	Wood Ceilings
	Wood Wall Paneling
	Wood Flooring
09 - Portable A:	Wood Interior Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Wood Wall Paneling
	Carpet
10 - Building 10:	Wood Flooring
11 - Pump House:	Wood Ceilings
	Concrete Flooring

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	1,275 MBH Cast Iron Steam Boiler
	4,200 MBH Cast Iron Steam Boiler
	Finned Wall Radiator
	Steam/Hot Water Heating Unit Vent
	5 kW Electric Unit Heater
	DDC Heating System Controls
	Pneumatic Heating System Controls
	1 Ton Ductless Split System

01 - Main Building:	3 Ton D/X Fan Coil
	2-Pipe Hot Water Hydronic Distribution System
	1 HP or Smaller Pump
	5 HP Pump
	10 HP Pump
	5,000 CFM Outdoor AHU
	Ductwork
	Dehumidifier
	Roof Exhaust Fan
	Kitchen Exhaust Hoods
	Fire Sprinkler System
03 - Maintenance:	3 kW Electric Unit Heater

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	2" Backflow Preventers
	Gas Piping System
	40 Gallon Gas Water Heater
	50 Gallon Gas Water Heater
	75 Gallon Gas Water Heater
	Domestic Water Piping System
03 - Maintenance:	Domestic Water Piping System
09 - Portable A:	Domestic Water Piping System
01 - Main Building:	Classroom Lavatories
	Mop/Service Sinks
	Non-Refrigerated Drinking Fountain
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Showers
	Toilets
	Urinals
03 - Maintenance:	Restroom Lavatories
	Toilets
09 - Portable A:	Restroom Lavatories
	Toilets
01 - Main Building:	Sump Pump
	Air Compressor (2 hp)
	1,000 Gallon Underground Fuel Oil Storage Tank

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	1200 kW Emergency Generator

01 - Main Building:	1,600 Amp Switchgear
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
	Panelboard - 120/208 400A
	Electrical Disconnect
	Light Fixtures
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures
03 - Maintenance:	Panelboard - 120/208 100A
	Light Fixtures
07 - Ticket Building:	Panelboard - 120/208 100A
	Light Fixtures
08 - Field Electrical Room:	45 KVA Transformer
	Panelboard - 120/208 100A
	Panelboard - 120/208 225A
09 - Portable A:	Panelboard - 120/208 100A
	Light Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	$12,452	$521,265	$453,262	$986,978	5.45 %
Roofing	-	$102,675	-	-	-	$102,675	0.57 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	$2,403,767	-	-	-	$2,403,767	13.27 %
Interior	-	-	$2,245,366	$1,594,643	$731,371	$4,571,380	25.23 %
Mechanical	-	$3,571,287	$42,991	$482,926	-	$4,097,204	22.61 %
Electrical	-	$319,206	$88,918	$5,514	$113,148	$526,786	2.91 %
Plumbing	-	-	$1,414,290	$226,224	$85,840	$1,726,355	9.53 %
Fire and Life Safety	$503,830	-	-	-	-	$503,830	2.78 %
Technology	-	-	$2,988,024	-	-	$2,988,024	16.49 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$13,690	$139,879	$59,894	$213,463	1.18 %
Total	$503,830	$6,396,936	$6,805,730	$2,970,451	$1,443,515	$18,120,462	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Interior	-	$4,571,380
Mechanical	-	$4,097,204
Technology	-	$2,988,024

The chart below represents the building systems and associated deficiency costs.

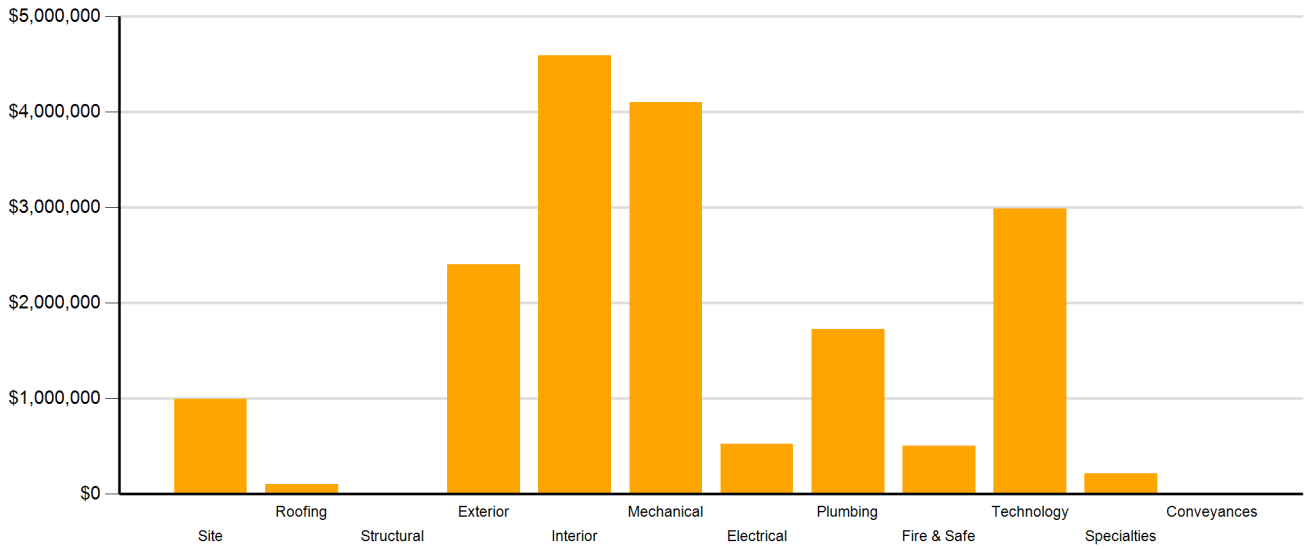


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

• **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

• **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

• **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

• **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

• **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

• **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

• **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

• **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

• **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	-	$178,731	-	$178,731
Barrier to Accessibility	-	-	$160,097	-	-	$160,097
Capital Renewal	-	$6,396,936	$3,582,587	$1,270,107	$750,651	$12,000,281
Code Compliance	$503,830	-	-	-	-	$503,830
Educational Adequacy	-	-	$65,028	$1,469,477	$692,864	$2,227,369
Functional Deficiency	-	-	$59,066	-	-	$59,066
Hazardous Material	-	-	-	$52,136	-	$52,136
Technology	-	-	$2,936,686	-	-	$2,936,686
Traffic	-	-	$2,266	-	-	$2,266
Total	$503,830	$6,396,936	$6,805,730	$2,970,451	$1,443,515	$18,120,462

**Displayed totals may not sum exactly due to mathematical rounding*

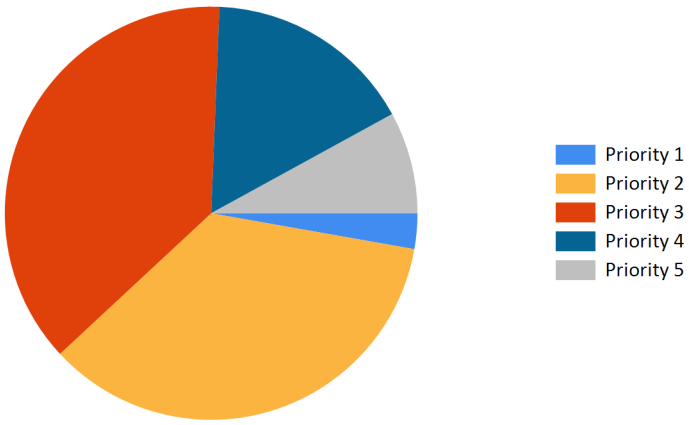


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$986,978	$0	$0	$0	$0	$0	$0	$986,978
Roofing	$102,675	$0	$0	$0	$0	$0	$0	$102,675
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$2,403,767	$0	$0	$0	$466,440	$250,271	$716,711	$3,120,478
Interior	$4,571,380	$0	$0	$917,509	$154,150	$5,947	$1,077,606	$5,648,986
Mechanical	$4,097,204	$0	$0	$70,869	$0	$871,591	$942,460	$5,039,664
Electrical	$526,786	$0	$0	$0	$0	$0	$0	$526,786
Plumbing	$1,726,355	$0	$0	$235,035	$0	$0	$235,035	$1,961,390
Fire and Life Safety	$503,830	$0	$0	$0	$0	$0	$0	$503,830
Technology	$2,988,024	$0	$0	$0	$0	$0	$0	$2,988,024
Conveyances	$0	$0	$0	$285,209	$0	$0	$285,209	$285,209
Specialties	$213,463	$0	$0	$0	$0	$1,001,683	$1,001,683	$1,215,146
Total	**$18,120,462**	**$0**	**$0**	**$1,508,622**	**$620,590**	**$2,129,492**	**$4,258,704**	**$22,379,166**

**Displayed totals may not sum exactly due to mathematical rounding*

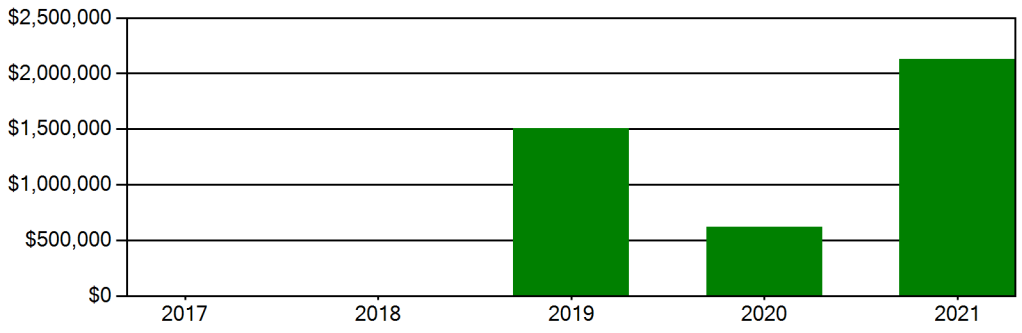
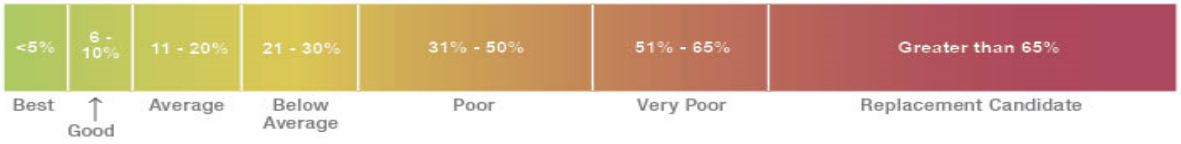


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $64,275,120. For planning purposes, the total 5-year need at the Mt. Hope High School is $22,406,303 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Mt. Hope High School facility has a 5-year FCI of 34.82%.

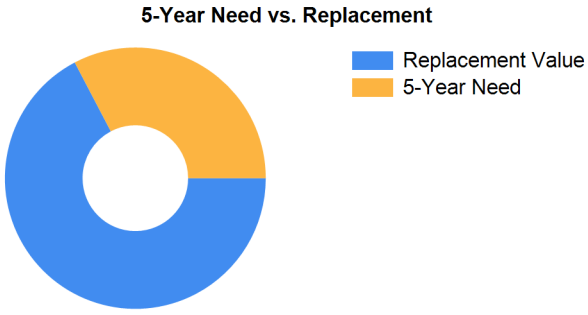


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 950 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Mt. Hope High School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $0.

Summary of Findings

The Mt. Hope High School comprises 177,732 square feet and was constructed in 1965. Current deficiencies at this school total $18,147,599. Five year capital renewal costs total $4,258,704. The total identified need for the Mt. Hope High School (current deficiencies and 5-year capital renewal costs) is $22,406,303. The 5-year FCI is 34.82%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Mt. Hope High School Totals	177,732	1965	$18,147,599	$4,258,704	$22,406,303	34.82%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

LEA Feedback

As part of the assessment process, LEAs were given several opportunities to provide feedback on the data. Jacobs performed a thorough review of the comments provided relating to the Facilities Condition Assessment. Based on information provided, some adjustments were made to improve or refine the dataset. In other situations, enough information was not provided, item was out of scope, or evidence provided by assessment team did not align with the feedback and no adjustment was made. Finally, deficiency priorities, costs, and educational space/technology standards are consistent throughout the state.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Walks Require Replacement	Capital Renewal	1,200	SF	3	$10,185	8583
Note: Asphalt walks have several large pot holes and cracks.						
Location: Courtyard and front sidewalk						
Pavement Markings: Words/Symbols Are Required	Traffic	6	Ea.	3	$2,266	9314
Note: Add arrow pavement markings on campus to control parent drop off/pick up flow						
Asphalt Paving Requires Replacement	Capital Renewal	150	CAR	4	$492,936	8582
Note: Asphalt pavement has several large pot holes and cracks.						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28409
Note: Backstops Require Replacement						
School has insufficient baseball fields.	Educational Adequacy	1	Ea.	5	$207,745	28313
Note: School has insufficient baseball fields.						
School has insufficient football/soccer fields.	Educational Adequacy	1	Ea.	5	$94,430	28184
Note: School has insufficient football/soccer fields.						
School has insufficient softball fields.	Educational Adequacy	1	Ea.	5	$151,087	28356
Note: School has insufficient softball fields.						
	Sub Total for System	**7**	**items**		**$986,978**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Pole Lighting Is Missing And Needed	Functional Deficiency	3	Ea.	3	$59,066	8585
Note: Additional pole lighting is needed.						
	Sub Total for System	**1**	**items**		**$59,066**	
	Sub Total for School and Site Level	**8**	**items**		**$1,046,044**	

Building: 01 - Main Building

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Metal Edge Termination At Wall Requires Repair	Capital Renewal	1	Ea.	2	$61	8602
The Aluminum Window Requires Replacement	Capital Renewal	10,061	SF	2	$1,702,563	8587
The Metal Exterior Door Requires Replacement	Capital Renewal	2	Door	2	$12,834	8586
Note: Doors rusted at bottom.						
The Metal Panel Exterior Requires Replacement (Bldg SF)	Capital Renewal	3,290	SF	2	$500,447	8624
Note: Original to the building.						
	Sub Total for System	**4**	**items**		**$2,215,906**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior CMU Walls Require Repair	Capital Renewal	1,800	SF	3	$65,370	8626
Location: Corridor M, D205, D201, E101, A138, B101, B102, B106, B207						
Interior Doors Require Replacement	Capital Renewal	262	Door	3	$1,208,051	8590
Note: Interior wood doors are original, scratched, worn and need to be replaced.						
The Acoustical Ceiling Tiles Require Replacement	Capital Renewal	1,800	SF	3	$16,257	8588
Note: There are various stained, broken, and cracked acoustical ceiling tiles throughout the building in classrooms and corridors.						
The Carpet Flooring Requires Replacement	Capital Renewal	5,800	SF	3	$126,186	8591
Note: Carpet is frayed and worn.						
The Ceramic Tile Flooring Requires Replacement	Capital Renewal	15,000	SF	3	$402,806	8593
Note: Several areas have broken ceramic flooring and base.						
The Existing Toilet Stall Does Not Meet Minimum ADA Requirements	Barrier to Accessibility	10	Ea.	3	$29,472	8584
The Existing Toilet Stall Does Not Meet Minimum ADA Requirements	Barrier to Accessibility	6	Ea.	3	$17,683	8599
Location: 2nd floor D wing, 1st floor D110, G wing, E101, 2nd floor B wing						

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Interior Door Hardware Requires Replacement	Barrier to Accessibility	36	Door	3	$112,943	9223
Note: Original to the building.						
The Vinyl Composition Tile Requires Replacement	Capital Renewal	20,000	SF	3	$229,435	8592
Location: Corridors D, M, C; 1st floor faculty room, mechanical room, E105, Dean's office, B208, C205, C210, C203, C201, C206						
Light Deterioration or Damage of 9x9 Asbestos Floor Tile is Present	Hazardous Material	6	SF	4	$171	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	6	Ea.	4	$1,711	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - linear feet)	Hazardous Material	1,340	LF	4	$30,574	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	2,070	SF	4	$19,679	Rollup
Room Is Excessively Reverberant	Acoustics	8,000	SF	4	$178,731	19713
Note: Gym						
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	35,135	SF	4	$1,338,782	Rollup
Vinyl Wall Covering Requires Replacement	Capital Renewal	70	SF	4	$1,464	8612
Note: Wall laminate in elevator cab is chipped.						
Classroom Door Requires Vision Panel	Educational Adequacy	1	Ea.	5	$2,282	Rollup
Interior Ceramic Walls Require Repainting	Capital Renewal	1,200	SF Wall	5	$9,127	8633
Note: Tile wall has paint peeling.						
Interior Doors Require Repainting	Capital Renewal	255	Door	5	$17,212	8589
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	23,974	SF	5	$158,404	Rollup
Room lacks appropriate sound control.	Educational Adequacy	200	SF	5	$6,959	Rollup
The Concrete Flooring Requires Repair Or Repainting	Capital Renewal	8,500	SF	5	$64,647	8594
Note: Floor in auditorium is chipped and worn and should be repainted.						
The Gypsum Board Ceilings Require Repainting	Capital Renewal	111,591	SF	5	$466,793	Rollup
	Sub Total for System	**23**	**items**		**$4,504,739**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Ductwork Requires Replacement (SF Basis)	Capital Renewal	30,000	SF	2	$441,035	10952
Note: Original to the building.						
Electric Unit Heater Requires Replacement	Capital Renewal	9	Ea.	2	$12,227	8618
Replace Unit Vent	Capital Renewal	70	Ea.	2	$1,184,036	8630
The Boiler HVAC Component Requires Replacement	Capital Renewal	2	Ea.	2	$455,325	8595
Note: Original installation.						
The Fan Coil HVAC Component Requires Replacement	Capital Renewal	3	Ea.	2	$17,113	8627
The Fin Tube Water Radiant Heater Requires Replacement	Capital Renewal	80	Ea.	2	$134,010	8619
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	171,897	SF	2	$1,325,015	8620
Air Compressor Is Inoperable And Requires Replacement	Capital Renewal	2	Ea.	3	$12,766	8613
Large HVAC Circulating Pump Requires Replacement	Capital Renewal	2	Ea.	3	$30,225	8614
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	42,974	SF	4	$290,277	8623
Note: Approximately 25% of the school has pneumatic controls that should be updated to DDC.						
Lab lacks an appropriate fume hood.	Educational Adequacy	4	Ea.	4	$87,943	Rollup
Small HVAC Circulating Pump Requires Replacement	Capital Renewal	4	Ea.	4	$38,119	8608
Small HVAC Circulating Pump Requires Replacement	Capital Renewal	6	Ea.	4	$45,770	8632
The Exhaust Hood Requires Replacement	Capital Renewal	4	Ea.	4	$20,816	10953
	Sub Total for System	**14**	**items**		**$4,094,677**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Switchgear Is Needed Or Requires Replacement	Capital Renewal	1	Ea.	2	$82,102	8609
The Panelboard Requires Replacement	Capital Renewal	20	Ea.	2	$96,971	8615
The Panelboard Requires Replacement	Capital Renewal	19	Ea.	2	$110,186	8616
The Panelboard Requires Replacement	Capital Renewal	4	Ea.	2	$25,098	8617

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Mounted Building Lighting Requires Replacement	Capital Renewal	20	Ea.	3	$29,852	10954
The Canopy Lighting Requires Replacement	Capital Renewal	4	Ea.	4	$5,514	10955
Room Has Insufficient Electrical Outlets	Educational Adequacy	228	Ea.	5	$113,148	Rollup
	Sub Total for System	**7**	**items**		**$462,872**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Gas Water Heater Requires Replacement	Capital Renewal	2	Ea.	3	$6,320	8610
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$3,113	8611
The Gas Water Heater Requires Replacement	Capital Renewal	1	Ea.	3	$5,845	8629
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	171,897	SF	3	$1,383,064	8607
Note: Water piping is old and deteriorating.						
The Urinal Plumbing Fixtures Require Replacement	Capital Renewal	12	Ea.	3	$15,949	8605
Non-Refrigerated Drinking Fountain Requires Replacement	Capital Renewal	1	Ea.	4	$10,220	8598
The Custodial Mop Or Service Sink Requires Replacement	Capital Renewal	7	Ea.	4	$18,035	8601
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	7	Ea.	4	$51,642	8606
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	45	Ea.	4	$143,146	8596
Room lacks a drinking fountain.	Educational Adequacy	6	Ea.	5	$6,617	Rollup
Room lacks a private shower area.	Educational Adequacy	2	Ea.	5	$20,470	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	20	Ea.	5	$30,232	Rollup
Underground Fuel/Oil Storage Tank Requires Replacement	Capital Renewal	1	Ea.	5	$28,521	8622
	Sub Total for System	**13**	**items**		**$1,723,174**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Alarm Is Missing Or Inadequate (NFPA 72 and NFPA 101, Section 9.6)	Code Compliance	171,897	SF	1	$503,830	8603
	Sub Total for System	**1**	**items**		**$503,830**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room lacks Interactive White Board	Educational Adequacy	9	Ea.	3	$51,338	Rollup
Technology: Auditorium AV/Multimedia system is in need of minor improvements.	Technology	1	Room	3	$95,070	18391
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	196	Ea.	3	$93,168	18389
Technology: Campus wireless infrastructure inadequate.	Technology	65	Ea.	3	$86,513	18388
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	55	Ea.	3	$1,098,055	18394
Technology: Instructional spaces do not have local sound reinforcement.	Technology	56	Ea.	3	$266,195	18399
Technology: Intermediate Telecommunications Room grounding system is inadequate or non-existent.	Technology	5	Ea.	3	$26,620	18385
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18377
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18378
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18379
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18380
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18381

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Intermediate Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$37,648	18383
Technology: Intermediate Telecommunications Room needs minor improvements.	Technology	1	Ea.	3	$16,732	18382
Technology: Intermediate Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	5	Ea.	3	$23,767	18384
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	18376
Technology: Main Telecommunications Room is not dedicated and/or inadequate.	Technology	1	Ea.	3	$50,197	18374
Technology: Main Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$9,032	18375
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	598	Ea.	3	$255,833	18390
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	196	Ea.	3	$83,851	18395
Technology: Network system inadequate and/or near end of useful life	Technology	32	Ea.	3	$152,112	18397
Technology: Network system inadequate and/or near end of useful life	Technology	3	Ea.	3	$22,817	18398
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	171,879	SF	3	$294,129	18396
Technology: Telecommunications Room (small size room) needs dedicated cooling system improvements.	Technology	4	Ea.	3	$19,014	18387
Technology: Telecommunications Room fiber connectivity infrastructure is outdated and/or inadequate.	Technology	2	Ea.	3	$12,549	18386
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	60	Ea.	3	$91,267	18392
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,225	18393
	Sub Total for System	**27**	**items**		**$2,988,024**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	3	Ea.	3	$13,690	Rollup
The Metal Student Lockers Require Replacement	Capital Renewal	255	Ea.	4	$125,456	8625
Location: Boy's locker room						
Welding Bays Are Required	Educational Adequacy	2	Ea.	4	$10,838	Rollup
Work Tables Are Required	Educational Adequacy	1	Ea.	4	$3,585	Rollup
Room lacks an appropriate refrigerator.	Educational Adequacy	7	Ea.	5	$59,894	Rollup
	Sub Total for System	**5**	**items**		**$213,463**	
	Sub Total for Building 01 - Main Building	**94**	**items**		**$16,706,684**	

Building: 02 - Storage

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	900	SF	2	$26,978	8635
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	8634
	Sub Total for System	**2**	**items**		**$33,395**	
	Sub Total for Building 02 - Storage	**2**	**items**		**$33,395**	

Building: 03 - Maintenance

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Roof Architectural Roof Covering Requires Replacement	Capital Renewal	2,250	SF	2	$77,006	8639
	Sub Total for System	**1**	**items**		**$77,006**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	8636
The Overhead Door Requires Replacement	Capital Renewal	1	Door	2	$36,792	8637
The Overhead Door Requires Replacement	Capital Renewal	1	Door	2	$36,792	8638
	Sub Total for System	**3**	**items**		**$80,001**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Doors Require Replacement	Capital Renewal	1	Door	3	$4,611	8640
Interior Wood Walls Require Replacement	Capital Renewal	2,250	SF	4	$20,535	8646
	Sub Total for System	**2**	**items**		**$25,146**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Electric Unit Heater Requires Replacement	Capital Renewal	2	Ea.	2	$2,527	8645
	Sub Total for System	**1**	**items**		**$2,527**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Panelboard Requires Replacement	Capital Renewal	1	Ea.	2	$4,849	8644
	Sub Total for System	**1**	**items**		**$4,849**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Restroom Lavatories Plumbing Fixtures Require Replacement	Capital Renewal	1	Ea.	4	$3,181	8641
	Sub Total for System	**1**	**items**		**$3,181**	
	Sub Total for Building 03 - Maintenance	**9**	**items**		**$192,710**	

Building: 04 - Storage

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	450	SF	2	$12,834	8647
	Sub Total for System	**1**	**items**		**$12,834**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	450	SF	2	$13,489	8649
The Metal Exterior Door Requires Replacement	Capital Renewal	1	Door	2	$6,417	8648
	Sub Total for System	**2**	**items**		**$19,906**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Wood Flooring Requires Replacement	Capital Renewal	450	SF	3	$14,931	9225
The Wood Ceiling Tiles Require Replacement	Capital Renewal	450	SF	4	$2,995	9224
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	450	SF	5	$2,973	Rollup
	Sub Total for System	**3**	**items**		**$20,899**	
	Sub Total for Building 04 - Storage	**6**	**items**		**$53,639**	

Building: 05 - Storage

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Shingle Roof Requires Replacement	Capital Renewal	450	SF	2	$12,834	8650
	Sub Total for System	**1**	**items**		**$12,834**	

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Exterior Wood Requires Replacement (Bldg SF)	Capital Renewal	450	SF	2	$13,489	8652
The Overhead Door Requires Replacement	Capital Renewal	1	Door	2	$36,792	8651
	Sub Total for System	**2**	**items**		**$50,281**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	450	SF	5	$2,973	Rollup
	Sub Total for System	**1**	**items**		**$2,973**	
	Sub Total for Building 05 - Storage	**4**	**items**		**$66,089**	

Building: 06 - Concessions

Exterior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Steel Window Requires Replacement	Capital Renewal	20	SF	2	$4,278	8653
Note: Window is cracked.						
	Sub Total for System	**1**	**items**		**$4,278**	
	Sub Total for Building 06 - Concessions	**1**	**items**		**$4,278**	

Building: 09 - Portable A

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Carpet Flooring Requires Replacement	Capital Renewal	810	SF	3	$17,623	8712
	Sub Total for System	**1**	**items**		**$17,623**	
	Sub Total for Building 09 - Portable A	**1**	**items**		**$17,623**	
	Total for Campus	**125**	**items**		**$18,120,462**	

Buildings with no reported deficiencies

07 - Ticket Building

08 - Field Electrical Room

10 - Building 10

11 - Pump House

Mt. Hope High School - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Window Wall	Storefront / Curtain Wall (Bldg SF)	3,240	SF	$261,206	4
Exterior Entrance Doors	Storefront Doors - Glass/Aluminum	25	Door	$178,256	4
Exterior Entrance Doors	Steel - Insulated and Painted	38	Door	$243,854	5
	Sub Total for System	**3**	**items**	**$683,315**	

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Interior Operable Partitions	Moveable Partitions (Major)	3,060	SF Wall	$353,460	3
Wood Flooring	Wood Flooring - All Types	17,000	SF	$564,049	3
Note:	Gym				
Interior Swinging Doors	Steel	36	Door	$154,150	4
	Sub Total for System	**3**	**items**	**$1,071,658**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Decentralized Cooling	Ductless Split System (1 Ton)	3	Ea.	$42,348	3
Facility Distribution Systems Supplementary Components	Dehumidifier	1	Ea.	$28,521	3
Exhaust Air	Kitchen Exhaust Hoods	1	Ea.	$15,964	5
HVAC Air Distribution	AHU 5,000 CFM Outdoor	6	Ea.	$855,627	5
	Sub Total for System	**4**	**items**	**$942,460**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Classroom Lavatories	85	Ea.	$231,114	3
Domestic Water Equipment	Backflow Preventers - 2 in. (Ea.)	1	Ea.	$3,921	3
	Sub Total for System	**2**	**items**	**$235,035**	

Conveyances

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Elevators	Hydraulic (Passenger Elev)	1	Ea.	$285,209	3
	Sub Total for System	**1**	**items**	**$285,209**	

Specialties

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Lockers	2,036	Ea.	$1,001,683	5
	Sub Total for System	**1**	**items**	**$1,001,683**	
	Sub Total for Building 01 - Main Building	**14**	**items**	**$4,219,361**	

Building: 02 - Storage

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Wall Painting and Coating	Painting/Staining (Bldg SF)	900	SF	$5,947	5
	Sub Total for System	**1**	**items**	**$5,947**	
	Sub Total for Building 02 - Storage	**1**	**items**	**$5,947**	

Building: 10 - Building 10

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Wall Veneer	Wood Siding - Bldg SF basis	900	SF	$26,978	4
	Sub Total for System	**1**	**items**	**$26,978**	
	Sub Total for Building 10 - Building 10	**1**	**items**	**$26,978**	

Building: 11 - Pump House

Exterior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Exterior Entrance Doors	Steel - Insulated and Painted	1	Door	$6,417	5
	Sub Total for System	**1**	**items**	**$6,417**	
	Sub Total for Building 11 - Pump House	**1**	**items**	**$6,417**	
	Total for: Mt. Hope High School	**17**	**items**	**$4,258,702**	

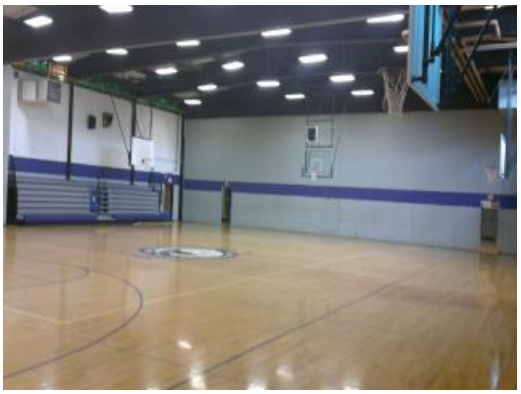
Supporting Photos



Site Aerial



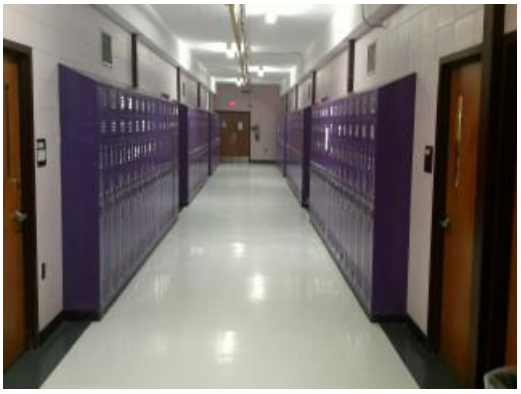
Lockers



Gymnasium



Auditorium


Hallway Finishes


Press Box


Wood Shop



Robotics Classroom


Library


Art Room


Pump House


Weight Room


Retractable Bleachers


Science Lab


Kitchen


Music Classroom



Home Economics Classroom



Main Entrance



Classroom



Site Signage



Computer Lab



Greenhouse


Exterior Door Rusted At Bottom


Broken Window


Poor Seals At Window


Broken Ceiling Tile


Stained Ceiling Tiles


Worn Wood Door



Vandalized Interior Door


Frayed Carpet In Office


Worn Carpet


Alligatoring Parking Lot Pavement


Cracked Parking Lot Pavement


Pot Hole In Parking Lot


Pot Hole In Asphalt Walkway


Unlevel Walkway


Cafeteria


Science Lab



Kitchen


Peeling Wall Paint


Aged Pump


Rusted Exterior Door


Weathered Wood Siding


Unit Heater


Aged Panelboard


Weathered And Vandalized Wood Siding



Maintenance Building Exterior


Cracked Window At Concessions Building


Storage Building 5 Exterior


Damaged Cabinet Unit Ventilator

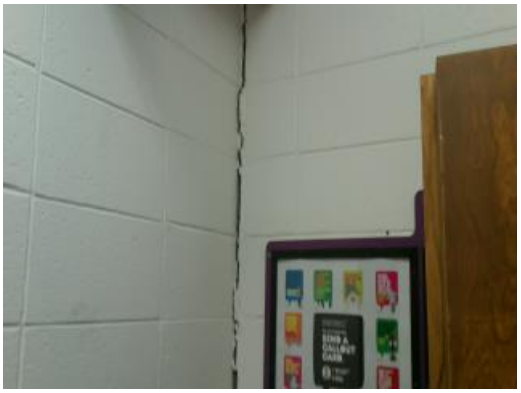

Cabinet Unit Ventilator


Damaged Wall


Chipped Paint


Aged Fan Coil Unit


Worn CMU Wall


Cracked CMU Wall


Damaged Locker Room Lockers


Finned Tube Radiator


Aged Unit Heater


Aged Panelboard


Aged Panelboard


10 HP Circulating Pump


Aged Air Compressors


Switchboard


Aged Pump


Aged Piping

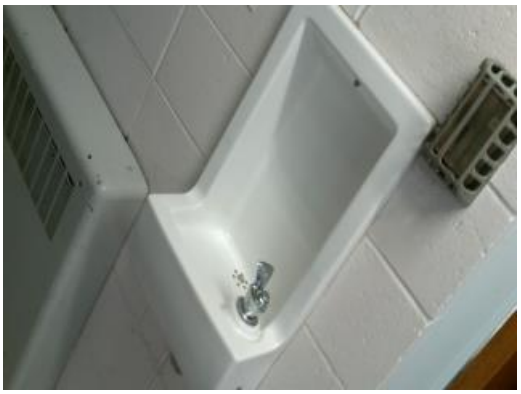

Damaged Drinking Fountain


Typical Urinal Fixtures


Corroded Metal At Termination Wall


Aged Service Sink

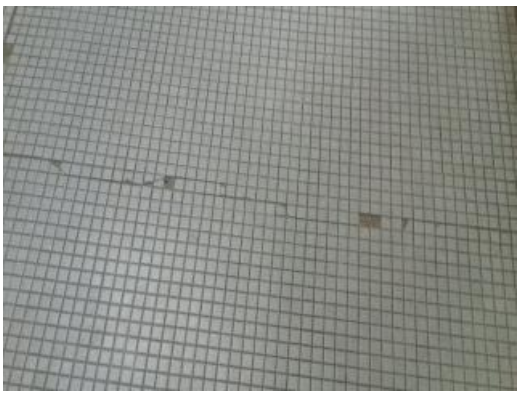

Non-Compliant Toilet Stalls


Non-Refrigerated Drinking Fountain


Worn Bathroom Sink


Original Boilers


Chipped Paint On Auditorium Floor


Cracked And Missing Ceramic Tile



Cracked VCT Flooring



Stained And Broken VCT

Facility Condition Assessment

Bristol Warren - Rockwell School | *June 2017*

1225 Hope Street, Bristol, RI 02809



Introduction

Rockwell School, located at 1225 Hope Street in Bristol, Rhode Island, was built in 1951. It comprises 29,200 gross square feet. Each school across the district was visited three times during the Facility Condition Assessments by three teams of specialists in the spring/summer of 2016.

Rockwell School serves grades KG - 5, has 18 instructional spaces, and has an enrollment of 278. Instructional spaces are defined as rooms in which a student receives education. The LEA reported capacity for Rockwell School is 312 with a resulting utilization of 89%.

For master planning purposes a 5-year need was developed to provide an understanding of the current need as well as the projected needs in the near future. For Rockwell School the 5-year need is $4,042,956. The findings contained within this report resulted from an assessment of building systems performed by building professionals experienced in disciplines including: architecture, mechanical, plumbing, electrical, acoustics, hazardous materials, and technology infrastructure.

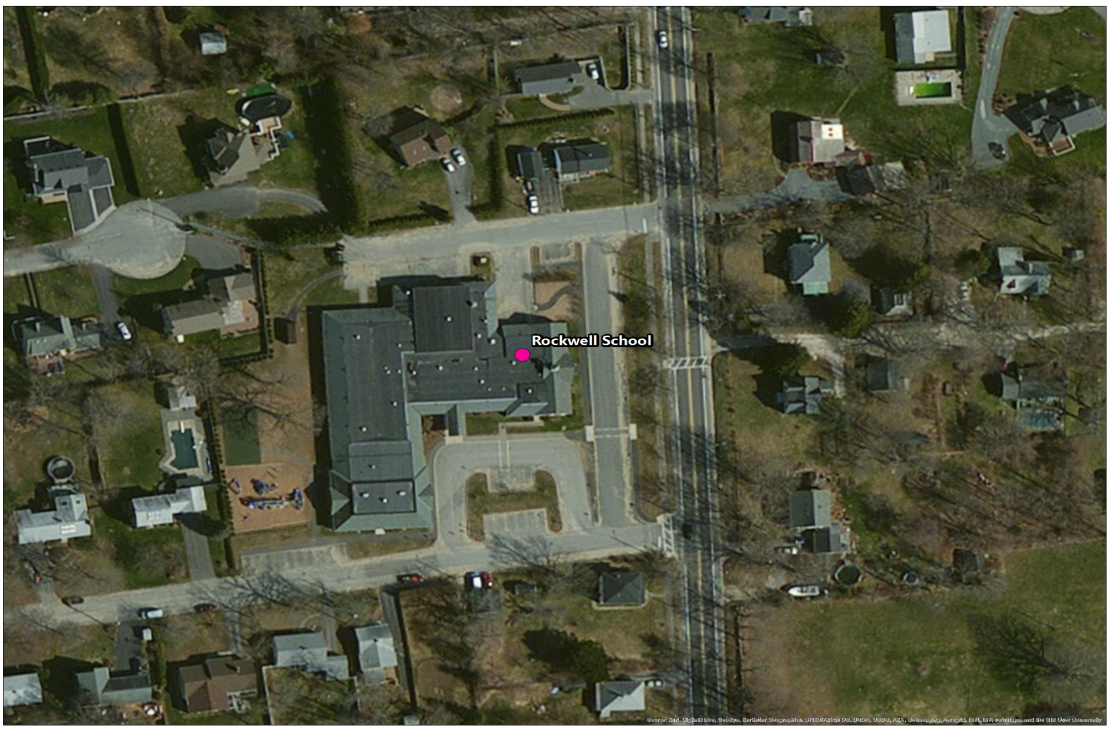


Figure 1: Aerial view of Rockwell School

Approach and Methodology

A facility condition assessment evaluates each building's overall condition. Two components of the facility condition assessment are combined to total the cost for facility need. The two components of the facility condition assessment are current deficiencies and life cycle forecast.

Current Deficiencies: Deficiencies are items in need of repair or replacement as a result of being broken, obsolete, or beyond useful life. The existing deficiencies that currently require correction are identified and assigned a priority. An example of a current deficiency might include a broken lighting fixture or an inoperable roof top air conditioning unit.

Life Cycle Forecast: Life cycle analysis evaluates ages of a building's systems to forecast system replacement as they reach the end of serviceable life. An example of a life cycle system replacement is a roof with a 20-year life that has been in place for 15 years and may require replacement in five years.

Discipline Specialists

All assessment teams produced current deficiencies associated with each school. The assessment for the school facilities at the Rhode Island Department of Education included several specialties:

Facility Condition Assessment: Architectural, mechanical, and electrical engineering professionals observed conditions via a visual observation that did not include intrusive measures, destructive investigations, or testing. Additionally, the assessment incorporated input provided by district facilities and maintenance staff where applicable. The assessment team recorded existing conditions, identified problems and deficiencies, documented corrective action and quantities, and identified the priority of the repair in accordance with parameters defined during the planning phase. The team took digital photos at each school to better identify significant deficiencies.

Technology: Technology specialists visited RIDE facilities and met with technology directors to observe and assess each facility's technology infrastructure. The assessment included network architecture, major infrastructure components, classroom instructional systems, necessary building space and support for technology. The technology assessment took into account the desired technology outcome and best practices and processes to ensure results can be attained effectively.

Hazardous Materials: Schools constructed prior to 1990 were assessed by specialists to identify the presence of hazardous materials. The team focused on identifying asbestos containing building materials (ACBMs), lead-based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. If sampling and analysis was required, these activities were recommended but not included in the scope of work.

Traffic: A traffic specialist performed an in-office review of aerial imagery of the traffic infrastructure around the facilities in accordance with section 1.05-7 in the Rhode Island School Construction Regulations and reviewed data collected on site during the facility condition assessment. Based on this information, deficiencies and corrective actions were identified. High problem areas were identified for consideration of more detailed site-specific study and analysis in the future.

Acoustics: Specialists assessed each school's acoustics, including architectural acoustics, mechanical system noise and vibration, and environmental noise. The assessment team evaluated room acoustics with particular attention to the intelligibility of speech in learning spaces, interior and exterior sound isolation, and mechanical system noise and vibration control.

Educational Program Space Assessment: Teams evaluated schools to ensure that that all spaces adequately support the districts educational program. Standards are established for each classroom type or instructional space. Each space is evaluated to determine if it meets those standards and a listing of alterations that should be made to make the space a better environment for teaching and learning was created.

System Summaries

The following tables summarize major building systems at the Rockwell School campus, identified by discipline and building.

Site

The site level systems for this campus include:

Site	Asphalt Parking Lot Pavement
	Asphalt Roadway Pavement
	Asphalt Pedestrian Pavement

Building Envelope

The exterior systems for the building(s) at this campus includes:

01 - Main Building:	Brick Exterior Wall
	Vinyl on Wood Frame Exterior Windows
	Steel Exterior Entrance Doors
	Storefront Entrance Doors

The roofing for the building(s) at this campus consists of:

01 - Main Building:	Composition Shingle Roofing
	EPDM Roofing
	Canopy Roofing

Interior

The interior systems for the building(s) at this campus include:

01 - Main Building:	Wood Interior Doors
	Overhead Interior Coiling Doors
	Interior Door Hardware
	Suspended Acoustical Grid System
	Suspended Acoustical Ceiling Tile
	Ceramic Tile Wall
	Acoustical Wall Paneling
	Interior Wall Painting
	Concrete Flooring
	Ceramic Tile Flooring
	Vinyl Composition Tile Flooring
	Carpet

Mechanical

The mechanical systems for the building(s) at this campus include:

01 - Main Building:	1,275 MBH Cast Iron Water Boiler
	Steam/Hot Water Heating Unit Vent

01 - Main Building:	Pneumatic Heating System Controls
	Window Units
	5 HP VFD
	2-Pipe Hot Water Hydronic Distribution System
	5 HP Pump
	Fire Sprinkler System

Plumbing

The plumbing systems for the building(s) at this campus include:

01 - Main Building:	400 Gallon Electric Water Heater
	Domestic Water Piping System
	Classroom Lavatories
	Mop/Service Sinks
	Refrigerated Drinking Fountain
	Restroom Lavatories
	Toilets
	Urinals
	Air Compressor (1 hp)

Electrical

The electrical systems for the building(s) at this campus include:

01 - Main Building:	800 Amp Distribution Panel
	Panelboard - 120/208 125A
	Panelboard - 120/208 225A
	Light Fixtures
	Building Mounted Lighting Fixtures
	Canopy Mounted Lighting Fixtures

Facility Deficiency Priority Levels

Deficiencies were ranked according to five priority levels, with Priority 1 items being the most critical to address:

Priority 1 – Mission Critical Concerns: Deficiencies or conditions that may directly affect the school's ability to remain open or deliver the educational curriculum. These deficiencies typically relate to building safety, code compliance, severely damaged or failing building components, and other items that require near-term correction. An example of a Priority 1 deficiency is a fire alarm system replacement.

Priority 2 – Indirect Impact to Educational Mission: Items that may progress to a Priority 1 item if not addressed in the near term. Examples of Priority 2 deficiencies include inadequate roofing that could cause deterioration of integral building systems, and conditions affecting building envelopes, such as roof and window replacements.

Priority 3 – Short-Term Conditions: Deficiencies that are necessary to the school's mission but may not require immediate attention. These items should be considered necessary improvements required to maximize facility efficiency and usefulness. Examples of Priority 3 items include site improvements and plumbing deficiencies.

Priority 4 – Long-Term Requirements: Items or systems that may be considered improvements to the instructional environment. The improvements may be aesthetic or provide greater functionality. Examples include cabinets, finishes, paving, removal of abandoned equipment, and educational accommodations associated with special programs.

Priority 5 – Enhancements: Deficiencies aesthetic in nature or considered enhancements. Typical deficiencies in this priority include repainting, replacing carpet, improved signage, or other improvements to the facility environment.

The following chart summarizes this site's current deficiencies by building system and priority. The listing details current deficiencies including deferred maintenance, functional deficiencies, code compliance, capital renewal, hazardous materials and technology categories.

Table 1: System by Priority

	Priority						
System	1	2	3	4	5	Total	% of Total
Site	-	-	-	$136,775	$69,827	$206,602	7.08 %
Roofing	-	$184,594	-	-	-	$184,594	6.32 %
Structural	-	-	-	-	-	$0	0.00 %
Exterior	-	-	-	-	-	$0	0.00 %
Interior	-	-	$26,156	$300,374	$172,894	$499,424	17.11 %
Mechanical	-	$225,079	$101,519	$197,237	-	$523,836	17.94 %
Electrical	-	-	-	-	$35,731	$35,731	1.22 %
Plumbing	-	$61,118	$234,940	$44,264	$16,527	$356,849	12.22 %
Fire and Life Safety	$85,585	-	-	-	-	$85,585	2.93 %
Technology	-	-	$1,022,437	-	-	$1,022,437	35.02 %
Conveyances	-	-	-	-	-	$0	0.00 %
Specialties	-	-	$4,563	-	-	$4,563	0.16 %
Total	$85,585	$470,791	$1,389,615	$678,650	$294,979	$2,919,621	

**Displayed totals may not sum exactly due to mathematical rounding*

The building systems with the most need include:

Technology	-	$1,022,437
Mechanical	-	$523,836
Interior	-	$499,424

The chart below represents the building systems and associated deficiency costs.

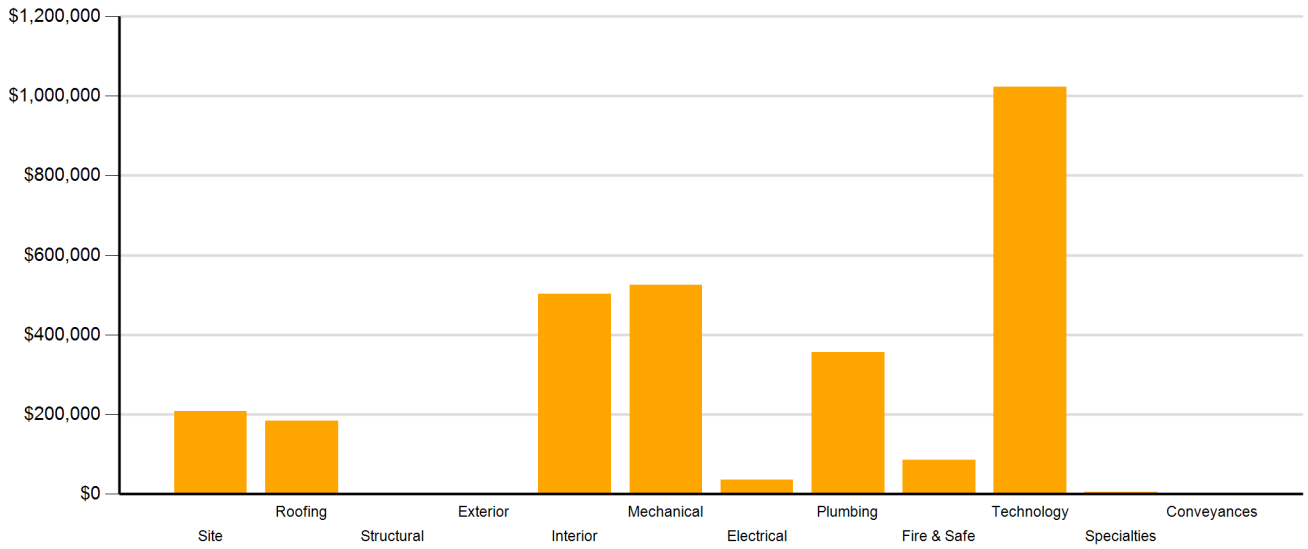


Figure 2: System Deficiencies

Current Deficiencies by Category

Deficiencies have been further grouped according to the observed category.

- **Acoustics** deficiencies relate to room acoustics, sound insolation, and mechanical systems and vibration control modeled after ANSI/ASA Standard S12.60-2010 and ASHRAE Handbook, Chapter 47 on Sound and Vibration Control.

- **Barrier to Accessibility** deficiencies relate to the Americans with Disabilities Act and the Rhode Island Governors Commission on Disability. Additional items related to accessibility may be included other categories.

- **Capital Renewal** items have reached or exceeded serviceable life and require replacement. These are current and do not include life cycle capital renewal forecasts. Also included are deficiencies correcting planned work postponed beyond its regular life expectancy.

- **Code Compliance** deficiencies related to current codes. Many may fall under grandfather clauses, which allow buildings to continue operating under codes effective at the time of construction. However, there are instances where the level of renovation requires full compliance which are reflected in the master plan.

- **Educational Adequacy** deficiencies identify where facilities do not align with the Basic Education Program and the RIDE School Construction Regulations.

- **Functional Deficiencies** are deficiencies for components or systems that have failed before the end of expected life or are not the right application, size, or design.

- **Hazardous Materials** include deficiencies for building systems or components containing potentially hazardous material. The team focused on identifying asbestos containing building materials (ACBMs), lead based painted (LBP) areas, polychlorinated biphenyls (PCBs), and chlorofluorocarbons (CFCs). As part of an indoor air and exterior air quality assessment, the team noted evidence of mold, water intrusion, mercury, and oil and hazardous materials (OHMs) exposure. With other scopes of work there may be other costs associated with hazardous materials.

- **Technology** deficiencies relate to network architecture, technology infrastructure, classroom systems, and support. Examples of technology deficiencies include: security cameras, secure electronic access, telephone handsets, and dedicated air conditioning for telecommunication rooms.

- **Traffic** deficiencies relate to vehicle or pedestrian traffic, such as bus loops, crosswalks, and pavement markings.

The following chart and table represent the deficiency category by priority. This listing includes current deficiencies for all building systems.

Table 2: Deficiency Category by Priority

	Priority					
Category	**1**	**2**	**3**	**4**	**5**	**Total**
Acoustics	-	-	$101,519	-	-	$101,519
Barrier to Accessibility	-	-	-	-	-	$0
Capital Renewal	-	$470,791	$261,095	$355,878	$172,894	$1,260,659
Code Compliance	$85,585	-	-	-	-	$85,585
Educational Adequacy	-	-	$4,563	$303,401	$122,085	$430,050
Functional Deficiency	-	-	-	$11,861	-	$11,861
Hazardous Material	-	-	-	$7,511	-	$7,511
Technology	-	-	$1,022,437	-	-	$1,022,437
Traffic	-	-	-	-	-	$0
Total	$85,585	$470,791	$1,389,615	$678,650	$294,979	$2,919,621

**Displayed totals may not sum exactly due to mathematical rounding*

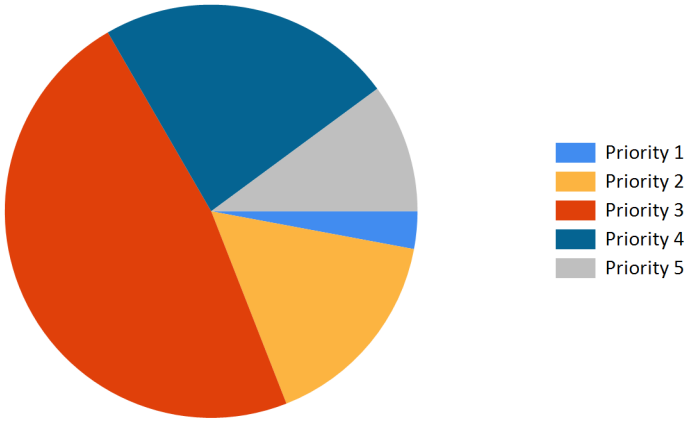


Figure 3: Current deficiencies by priority

Life Cycle Capital Renewal Forecast

During the facility condition assessment, assessors inspected all major building systems. If a need for immediate replacement was identified, a deficiency was created with the estimated repair costs. The identified deficiency contributes to the facility's total current repair costs.

Capital planning scenarios span multiple years, as opposed to being constrained to immediate repairs. Construction projects may begin several years after the initial facility condition assessment. Therefore, in addition to the current year repair costs, it is necessary to forecast the facility's future costs using a 5-year life cycle renewal forecast model.

Life cycle renewal is the projection of future building system costs based upon each individual system's expected serviceable life. Building systems and components age over time, eventually break down, reach the end of their useful lives, and may require replacement. While an item may be in good condition now, it might reach the end of its life before a planned construction project occurs.

The following chart shows all current deficiencies and the subsequent 5-year life cycle capital renewal projections. The projections outline costs for major building systems in which a component is expected to reach the end of its useful life and require capital funding for replacement.

Table 3: Capital Renewal Forecast

		Life Cycle Capital Renewal Projections						
System	Current Deficiencies	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	LC Yr. 1-5 Total	Total 5-Year Need
Site	$206,602	$0	$0	$0	$0	$0	$0	$206,602
Roofing	$184,594	$0	$0	$0	$0	$0	$0	$184,594
Structural	$0	$0	$0	$0	$0	$0	$0	$0
Exterior	$0	$0	$0	$0	$0	$0	$0	$0
Interior	$499,424	$0	$0	$0	$219,087	$637,884	$856,971	$1,356,395
Mechanical	$523,836	$0	$0	$0	$19,060	$12,024	$31,084	$554,920
Electrical	$35,731	$0	$0	$0	$0	$0	$0	$35,731
Plumbing	$356,849	$0	$162,645	$5,153	$0	$0	$167,798	$524,647
Fire and Life Safety	$85,585	$0	$0	$0	$0	$0	$0	$85,585
Technology	$1,022,437	$0	$0	$0	$0	$0	$0	$1,022,437
Conveyances	$0	$0	$0	$0	$0	$0	$0	$0
Specialties	$4,563	$0	$0	$0	$0	$61,006	$61,006	$65,569
Total	**$2,919,621**	**$0**	**$162,645**	**$5,153**	**$238,147**	**$710,914**	**$1,116,859**	**$4,036,480**

**Displayed totals may not sum exactly due to mathematical rounding*

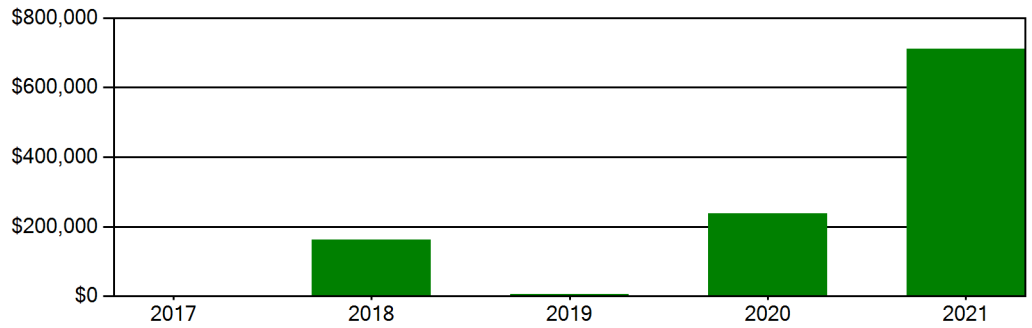
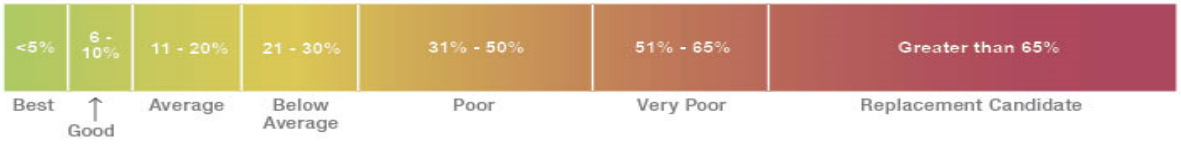


Figure 4: Life Cycle Capital Renewal Forecast

Facility Condition Index (FCI)

The Facility Condition Index (FCI) is used throughout the facility condition assessment industry as a general indicator of a building's health. Since 1991, the facility management industry has used an index called the FCI to benchmark the relative condition of a group of schools. The FCI is derived by dividing the total repair cost, including educational adequacy and site-related repairs, by the total replacement cost. A facility with a higher FCI percentage has more need, or higher priority, than a facility with a lower FCI. It should be noted that costs in the New Construction category are not included in the FCI calculation.



Financial modeling has shown that over a 30-year period, it is more cost effective to replace than repair schools with a FCI of 65 percent or greater. This is due to efficiency gains with facilities that are more modern and the value of the building at the end of the analysis period. It is important to note that the FCI at which a facility should be considered for replacement is typically debated and adjusted based on property owners and facility managers approach to facility management. Of course, FCI is not the only factor used to identify buildings that need renovation, replacement, or even closure. Historical significance, enrollment trends, community sentiment, and the availability of capital are additional factors that are analyzed when making school facility decisions.

For master planning purposes, the total current deficiencies and the first five years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-year FCI was calculated by dividing the 5-year need by the total replacement cost. Costs associated with new construction are not included in the FCI calculation.

The replacement value represents the estimated cost of replacing the current building with another building of like size, based on today's estimated cost of construction in the Providence, Rhode Island area. The estimated replacement cost for this facility is $10,220,000. For planning purposes, the total 5-year need at the Rockwell School is $4,042,956 (Life Cycle Years 1-5 plus the FCI deficiency cost). The Rockwell School facility has a 5-year FCI of 39.50%.

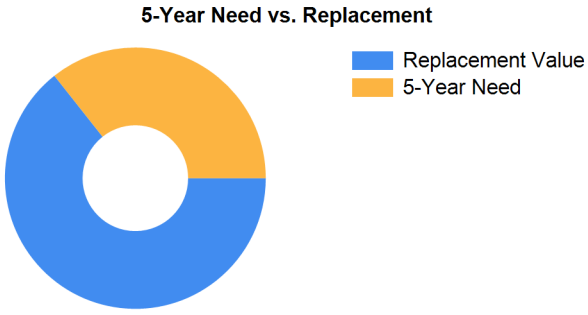


Figure 5: 5-Year FCI

It is important to reiterate that this FCI replacement threshold is not conclusive, but is intended to initiate planning discussion in which other relevant issues with regard to a facility's disposition must be incorporated. This merely suggests where conversations regarding replacement might occur.

Rhode Island Aspirational Capacity

The capacity of a school reflects how many students the school's physical facility can effectively serve. There are various methodologies that exist to calculate capacity. It is not uncommon to review an existing building only to find that the capacity that had once been assigned is greater than what can be reasonably accommodated today. This is primarily because of a change in how programs are delivered.

The Rhode Island Aspirational Capacity is based on the Rhode Island School Construction Regulations (SCRs) and is an aspirational goal of space use. The capacity for each individual public school in the state of Rhode Island was designed to conform to Section 1.06-2 Space Allowance Guidelines of the Rhode Island Department of Education (RIDE) SCRs. These regulations outline the allowed gross square feet (GSF) per student at each school type (ES, MS, HS) by utilizing a sliding scale based on projected enrollment. The resulting capacities reflect how school capacities align to the SCRs for new construction. The existing enrollment was multiplied by the GSF per student for the appropriate bracket. For the purposes of this analysis, Pre-K centers were rolled into the elementary totals, and K-8 facilities were counted as middle schools.

The most consistent and equitable way a state can determine school capacities across a variety of districts and educational program offerings is to use square-foot-per-student standards. In contrast, in the 2013 Public Schoolhouse Assessment Report, LEAs self-reported capacities for their elementary, middle and high schools. Districts typically report "functional capacity," which is defined as the number of students each classroom can accommodate. Functional capacity counts how many students can occupy a space, not how much room students and teachers have within that space. For example, a 650-square-foot classroom and a 950-square-foot classroom can both have a reported capacity of 25 students, but the actual teaching and learning space per student varies greatly.

The variation in square feet per student impacts the kinds of teaching practices possible in each space. The lowest allocation of space per student restricts group and project-based learning strategies and requires teachers to teach in more traditional, lecture-style formats, due to a lack of space. Furthermore, the number of students that can be accommodated in a classroom does not account for access to sufficient common spaces such as libraries, cafeterias, and gymnasiums. When cafeterias are undersized relative to the population, schools must host four or more lunch periods a day, resulting in some students eating lunch mid-morning and some mid-afternoon. Similarly, undersized libraries and gymnasiums create scheduling headaches for schools and restrict student access. Finally, a classroom count-only approach to school capacity does not consider the inherent scheduling challenges schools face.

Applying the Rhode Island Aspirational Capacity, a facility of this size could ideally support an enrollment of approximately 162 students.

Facility New Construction

As part of the Educational Program Space Assessment, select core spaces were compared to the RI School Construction Regulations. If it was determined that a facility was in need of square footage related to a cafeteria or library/media center, a cost for additional space was estimated. This cost is not included in the total 5-year need or the 5-year FCI calculation.

The New Construction cost to bring the Rockwell School cafeteria and/or library/media center to the size prescribed by the SCRs is estimated to be $0.

Summary of Findings

The Rockwell School comprises 29,200 square feet and was constructed in 1951. Current deficiencies at this school total $2,926,097. Five year capital renewal costs total $1,116,859. The total identified need for the Rockwell School (current deficiencies and 5-year capital renewal costs) is $4,042,956. The 5-year FCI is 39.50%.

Table 4: Facility Condition by Building

	Gross Sq Ft	Year Built	Current Deficiencies	LC Yr. 1-5 Total	Total 5 Yr Need (Yr 1-5 + Current Defs)	5-Year FCI
Rockwell School Totals	29,200	1951	$2,926,097	$1,116,859	$4,042,956	39.50%

**Displayed totals may not sum exactly due to mathematical rounding*

The following pages provide a listing of all current deficiencies and 5-year life cycle need and the associated costs, followed by photos taken during the assessment.

Cost Estimating

Cost estimates are derived from local cost estimating expertise and enhanced by industry best practices, historical cost data, and relevance to the Rhode Island region. Costs have been developed from current market rates as of the 2nd quarter in 2016. All costs are based on a replace-in-kind approach, unless the item was not in compliance with national or state regulations or standards.

For planning and budgeting purposes, facility assessments customarily add a soft cost multiplier onto deficiency repair cost estimates. This soft cost multiplier accounts for costs that are typically incurred when contracting for renovation and construction services. Soft costs typically include construction cost factors, such as contractor overhead and profit, as well as labor and material inflation, professional fees, and administrative costs. Based on the Rhode Island School Construction Regulations, a soft cost multiplier of 20% is included on all cost estimates. Other project allowances are included in the cost estimates based on school attributes such as age, location, and historic designation. All stated costs in the assessment report will include soft costs for planning and budgeting purposes. These are estimates, and costs will vary at the time of construction.

Site Level Deficiencies

Site

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Asphalt Paving Requires Replacement	Capital Renewal	33	CAR	4	$108,446	8789
Note: cracks and alligatoring						
Backstops Require Replacement	Educational Adequacy	1	Ea.	4	$28,329	28407
Note: Backstops Require Replacement						
Exterior Basketball Goals are Required	Educational Adequacy	1	Ea.	5	$5,807	28689
Note: Exterior Basketball Goals are Required						
PE / Recess Playfield is Missing and is Needed	Educational Adequacy	1	Ea.	5	$64,020	54860
Note: PE / Recess Playfield is Missing and is Needed						
	Sub Total for System	**4**	**items**		**$206,602**	
	Sub Total for School and Site Level	**4**	**items**		**$206,602**	

Building: 01 - Main Building

Roofing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
EPDM Roofing Requires Replacement (Bldg SF)	Capital Renewal	14,599	SF	2	$184,594	9226
Note: Inaccessible due to snow. Evidence of leaks present inside the building.						
	Sub Total for System	**1**	**items**		**$184,594**	

Interior

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Vinyl Composition Tile Requires Replacement	Capital Renewal	2,280	SF	3	$26,156	8790
Note: Lounge has chipped VCT, north corridor has curled and loose tiles, cracked VCT outside room 4						
Ceiling Grid Requires Replacement	Capital Renewal	500	SF	4	$5,930	8800
Note: Stained tiles in library, room 5, room 8, office, several corridors.						
Ceiling Grid Requires Replacement	Functional Deficiency	1,000	SF	4	$11,861	8801
Note: Water leak in girls restroom next to room 17 damaging tile.						
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - each)	Hazardous Material	8	Ea.	4	$2,282	Rollup
Paint (probable pre-1978 in base layer(s)) - damaged area < 9 sq. ft. OR overall worn AND in children-accessible area (measurement unit - square feet)	Hazardous Material	550	SF	4	$5,229	Rollup
Room Lighting Is Inadequate Or In Poor Condition.	Educational Adequacy	7,219	SF	4	$275,072	Rollup
Interior Walls Require Repainting (Bldg SF)	Capital Renewal	26,167	SF	5	$172,894	Rollup
	Sub Total for System	**7**	**items**		**$499,424**	

Mechanical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Mechanical / HVAC Piping / System Is Beyond Its Useful Life	Capital Renewal	29,200	SF	2	$225,079	8795
Unit Ventilators Are Excessively Noisy	Acoustics	16	Ea.	3	$101,519	27968
Location: Classrooms						
Existing Controls Are Inadequate And Should Be Replaced With DDC Controls	Capital Renewal	29,200	SF	4	$197,237	8798
Note: Need to be upgraded to digital, past life expectancy						
	Sub Total for System	**3**	**items**		**$523,836**	

Electrical

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room Has Insufficient Electrical Outlets	Educational Adequacy	72	Ea.	5	$35,731	Rollup
	Sub Total for System	**1**	**items**		**$35,731**	

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Electric Water Heater Requires Replacement	Capital Renewal	1	Ea.	2	$61,118	8803
Note: Replace 530 gallon storage water heater						
The Plumbing / Domestic Water Piping System Is Beyond Its Useful Life	Capital Renewal	29,200	SF	3	$234,940	8794

Plumbing

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
The Refrigerated Water Cooler Requires Replacement	Capital Renewal	6	Ea.	4	$44,264	8793
Room lacks a drinking fountain.	Educational Adequacy	9	Ea.	5	$9,925	Rollup
The Class Room Lavatories Plumbing Fixtures Are Missing And Should Be Installed	Educational Adequacy	6	Ea.	5	$6,601	Rollup
	Sub Total for System	**5**	**items**		**$356,849**	

Fire and Life Safety

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Fire Alarm Is Missing Or Inadequate (NFPA 72 and NFPA 101, Section 9.6)	Code Compliance	29,200	SF	1	$85,585	8791
	Sub Total for System	**1**	**items**		**$85,585**	

Technology

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Technology: Campus network switching electronics are antiquated and/or do not meet standards.	Technology	120	Ea.	3	$57,042	18420
Technology: Campus wireless infrastructure inadequate.	Technology	26	Ea.	3	$34,605	18421
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	21	Ea.	3	$419,257	18426
Technology: Classroom AV/Multimedia systems are inadequate and/or near end of useful life.	Technology	1	Ea.	3	$19,965	18428
Technology: Instructional spaces do not have local sound reinforcement.	Technology	22	Ea.	3	$104,577	18431
Technology: Main Telecommunications Room ground system is inadequate or non-existent.	Technology	1	Ea.	3	$6,655	18418
Technology: Main Telecommunications Room is not dedicated. Room requires partial walls and/or major improvements.	Technology	1	Ea.	3	$42,591	18416
Technology: Main Telecommunications Room UPS does not meet standards, is inadequate, or non-existent.	Technology	1	Ea.	3	$9,032	18417
Technology: Network cabling infrastructure is outdated (Cat 5 or less) and/or does not meet standards.	Technology	48	Ea.	3	$20,535	18422
Technology: Network cabling infrastructure is partially outdated and/or needs expansion.	Technology	72	Ea.	3	$30,803	18427
Technology: Network system inadequate and/or near end of useful life	Technology	25	Ea.	3	$118,837	18430
Technology: PA/Bell/Clock system is inadequate and/or near end of useful life.	Technology	29,200	SF	3	$49,969	18429
Technology: Special Space AV/Multimedia system is inadequate.	Technology	1	Ea.	3	$54,190	18423
Technology: Telecommunications Room (large size room) needs dedicated cooling system improvements.	Technology	1	Ea.	3	$7,606	18419
Technology: Telephone handsets are inadequate and sparsely deployed throughout the campus.	Technology	26	Ea.	3	$39,549	18424
Technology: Telephone system is inadequate and/or non-existent.	Technology	1	Ea.	3	$7,225	18425
	Sub Total for System	**16**	**items**		**$1,022,437**	

Specialties

Deficiency	Category	Qty	UoM	Priority	Repair Cost	ID
Room has insufficient writing area.	Educational Adequacy	1	Ea.	3	$4,563	Rollup
	Sub Total for System	**1**	**items**		**$4,563**	
	Sub Total for Building 01 - Main Building	**35**	**items**		**$2,713,018**	
	Total for Campus	**39**	**items**		**$2,919,621**	

Rockwell School - Life Cycle Summary Yrs 1-5

Building: 01 - Main Building

Interior

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Resilient Flooring	Vinyl Composition Tile Flooring	19,098	SF	$219,087	4
Resilient Flooring	Vinyl Composition Tile Flooring	2,335	SF	$26,787	5
Note:	Sheet				
Acoustical Suspended Ceilings	Ceilings - Acoustical Grid System	29,200	SF	$346,327	5
Acoustical Suspended Ceilings	Ceilings - Acoustical Tiles	29,200	SF	$263,723	5
Wall Paneling	Acoustical Panel Wall	114	SF	$1,047	5
	Sub Total for System	**5**	**items**	**$856,971**	

Mechanical

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Facility Hydronic Distribution	Pump - 5HP	2	Ea.	$19,060	4
Other HVAC Distribution Systems	VFD (5 HP)	2	Ea.	$12,024	5
	Sub Total for System	**2**	**items**	**$31,084**	

Plumbing

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Plumbing Fixtures	Classroom Lavatories	17	Ea.	$46,223	2
Plumbing Fixtures	Restroom Lavatories	21	Ea.	$66,802	2
Plumbing Fixtures	Toilets	16	Ea.	$45,633	2
Plumbing Fixtures	Urinals	3	Ea.	$3,987	2
Plumbing Fixtures	Mop/Service Sinks	2	Ea.	$5,153	3
	Sub Total for System	**5**	**items**	**$167,798**	

Specialties

Uniformat Description	LC Type Description	Qty	UoM	Repair Cost	Remaining Life
Casework	Lockers	124	Ea.	$61,006	5
	Sub Total for System	**1**	**items**	**$61,006**	
	Sub Total for Building 01 - Main Building	**13**	**items**	**$1,116,859**	
	Total for: Rockwell School	**13**	**items**	**$1,116,859**	

Supporting Photos



Site Aerial



530 Gallon Water Heater



Restroom Paint



Playground


Gym


Front Elevation


Typical Classroom


Library


Lockers


Sidewalk


Main Entry


Kitchen


VCT North Corridor


Cracks


VCT Outside Room 4


Typical Restroom


Piping


VCT In Lounge



Stained Tile


Piping


Cracks


Typical Corridor Paint


Typical Corridor


Stained Tile


Cabinet Unit Ventilator


Water Leak In Girls Restroom



1 PARTIAL FIRST FLOOR PLAN – SECURITY
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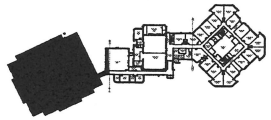
KEY NOTES:

1. PROVIDE SECURITY CAGE AROUND CAMERA.
2. REPLACE EXISTING INTERCOM WITH VIDEO INTERCOM AXIS 8105E NETWORK VIDEO STATION.
3. MASTER INTERCOM SHALL BE YEALINK SIP-T58B VIDEO STATION.

NOTES:

1. ALL CABLING TO COMP ROOM 105.



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Project

Bristol-Warren Regional School District

Security Improvements

Mt. Hope High School
199 Chestnut St, Bristol, RI 02809

Guiteras Elementary School
35 Washington St, Bristol, RI 02809

Rockwell Elementary School
1225 Hope St, Bristol, RI 02809

Kickemuit Middle School
525 Child St, Warren, RI 02885

Hugh Cole Elementary School
50 Asylum Rd, Warren, RI 02885

Colt Andrews Elementary School
570-574 Hope St, Bristol, RI 02809

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Sheet Contents

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Project Number. 6468

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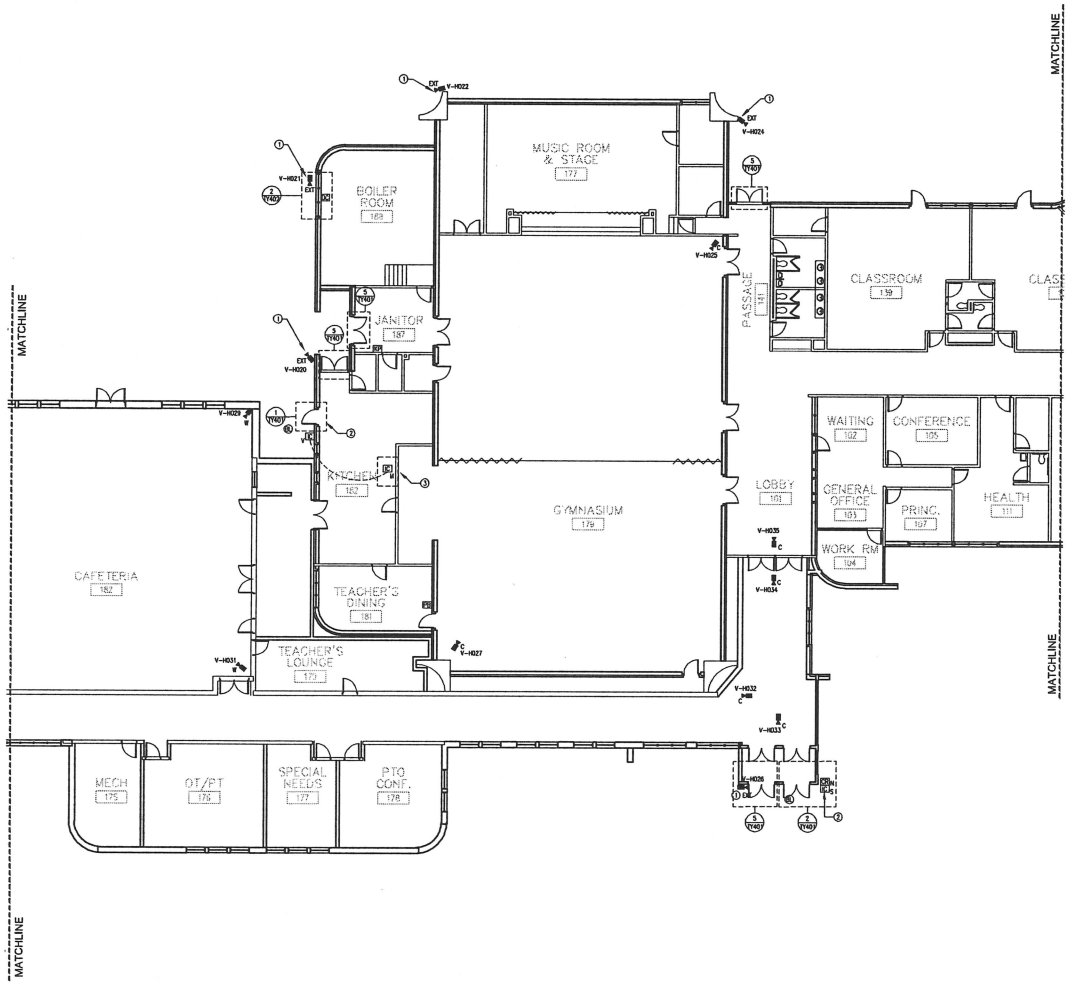

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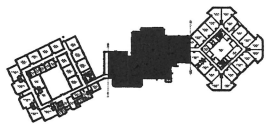

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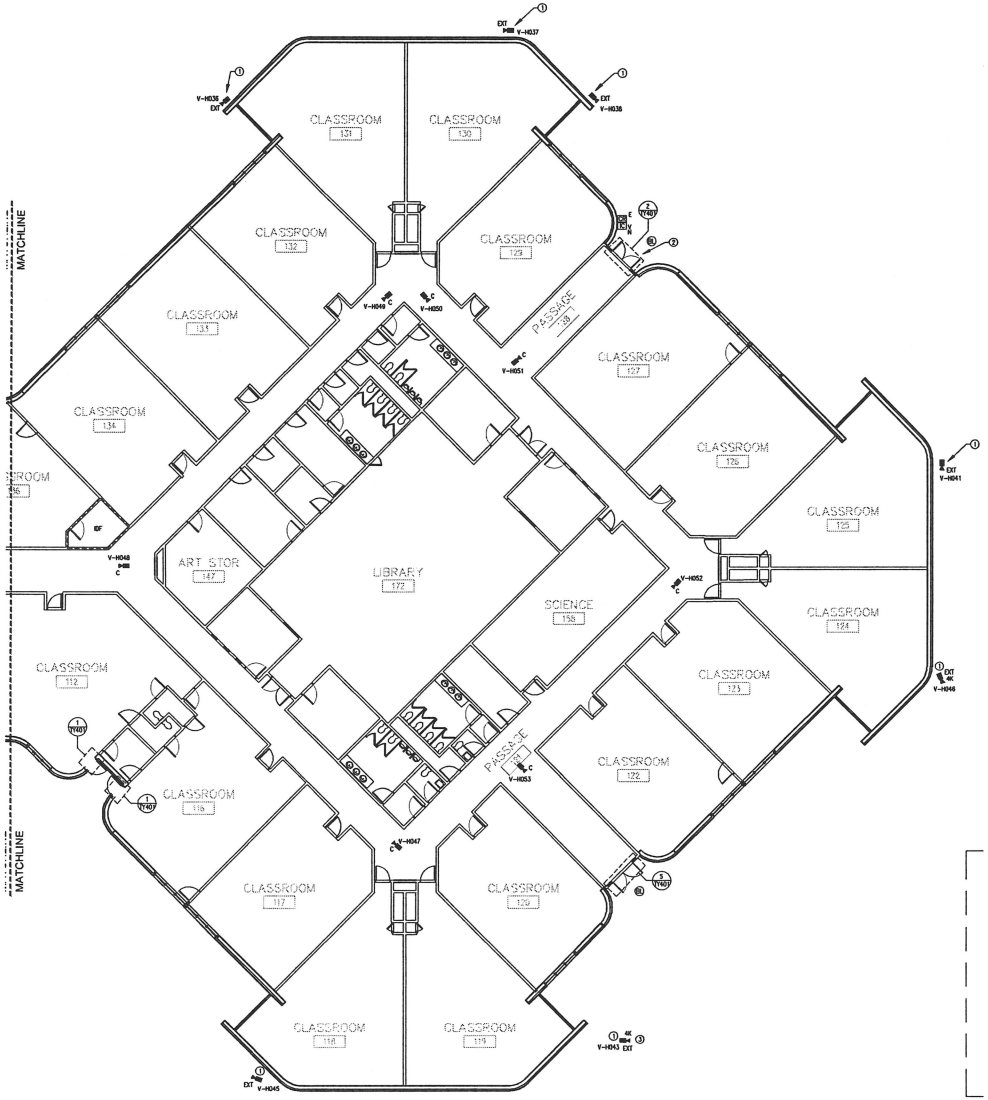

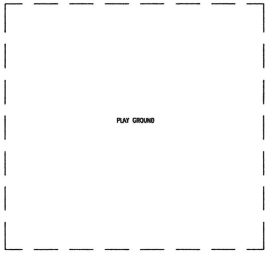

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NOTES:

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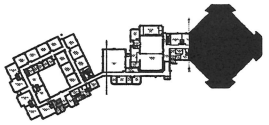

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TY101.3H

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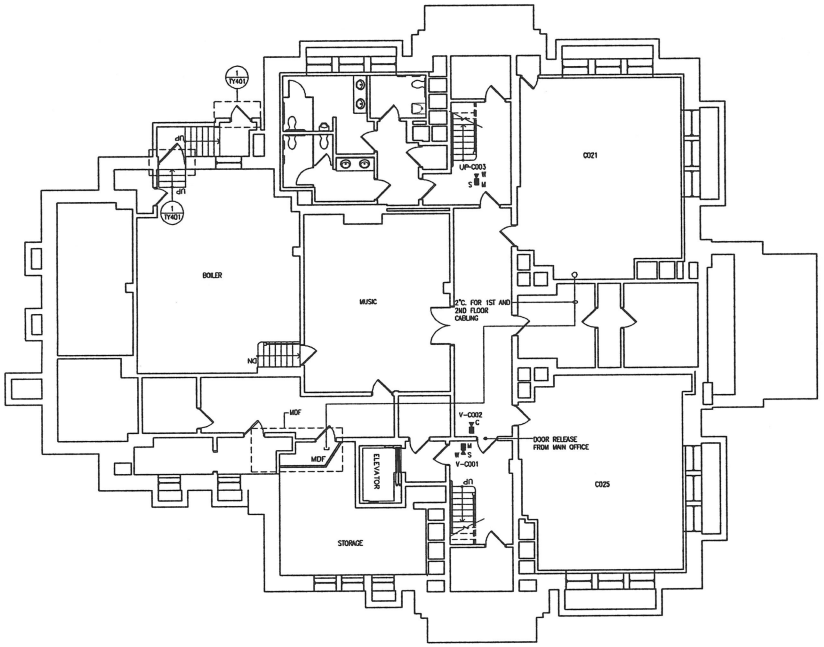

NOTES:

1. ALL CABLING TO MDF.

REF. NORTH

1 TY100 LOWER LEVEL FLOOR PLAN – SECURITY

Scale: 1/8" = 1'-0"

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Kickemuit Middle School
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Sheet Contents

COLT ELEMENTARY

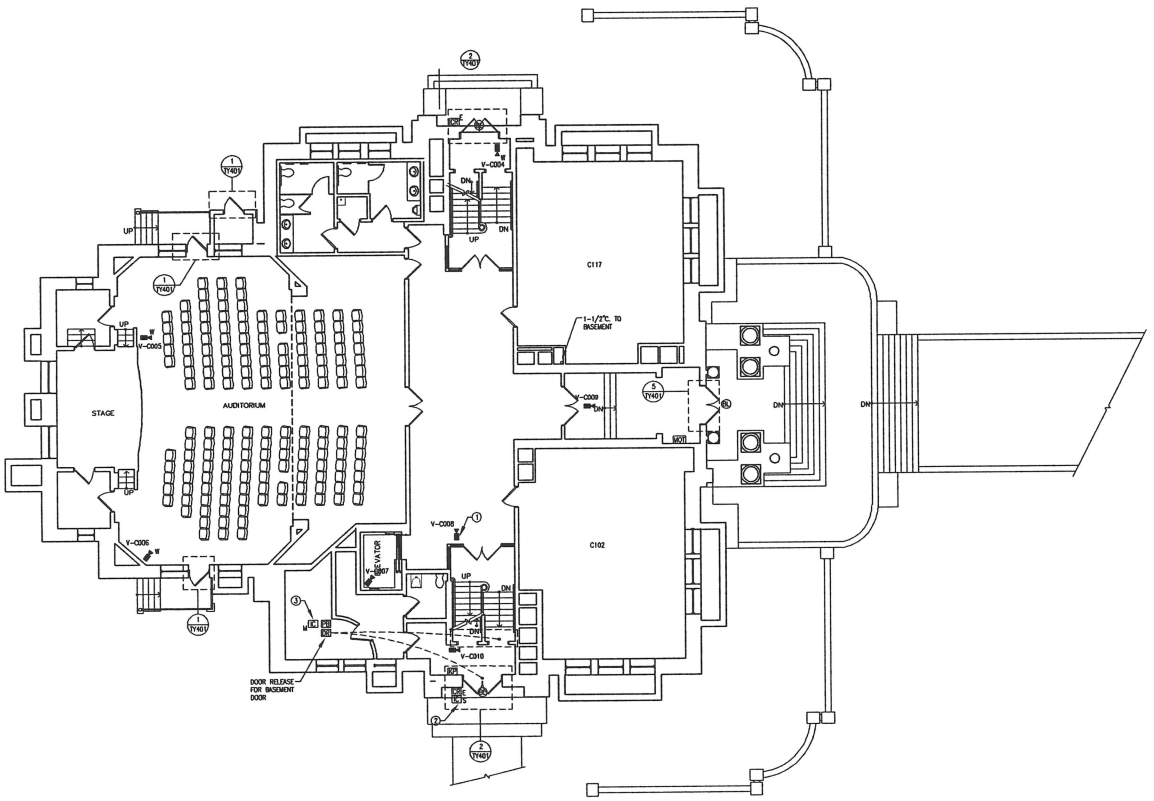
SECURITY LOWER LEVEL FLOOR PLAN

Project Number. 6468

Drawing No.

TY100.C

Sheet of



REF. NORTH

1 TY102 MAIN LEVEL FLOOR PLAN – SECURITY

Scale: 1/8" = 1'-0"

KEY NOTES:

1. MOUNT CAMERA TO GLASS WALL MULLION.
2. REPLACE EXISTING INTERCOM WITH VIDEO INTERCOM SUBSTATION. AXIS 8105E NETWORK VIDEO STATION.
3. MASTER INTERCOM SHALL BE YEALINK SIP-T58B VIDEO STATION.

NOTES:

1. ALL CAMERA CABLING TO MDF IN BASEMENT.
2. EXISTING S2 SECURITY PANEL IS IN MDF.

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COLT ELEMENTARY

SECURITY MAIN LEVEL FLOOR PLAN

Project Number. 6468

Drawing No.

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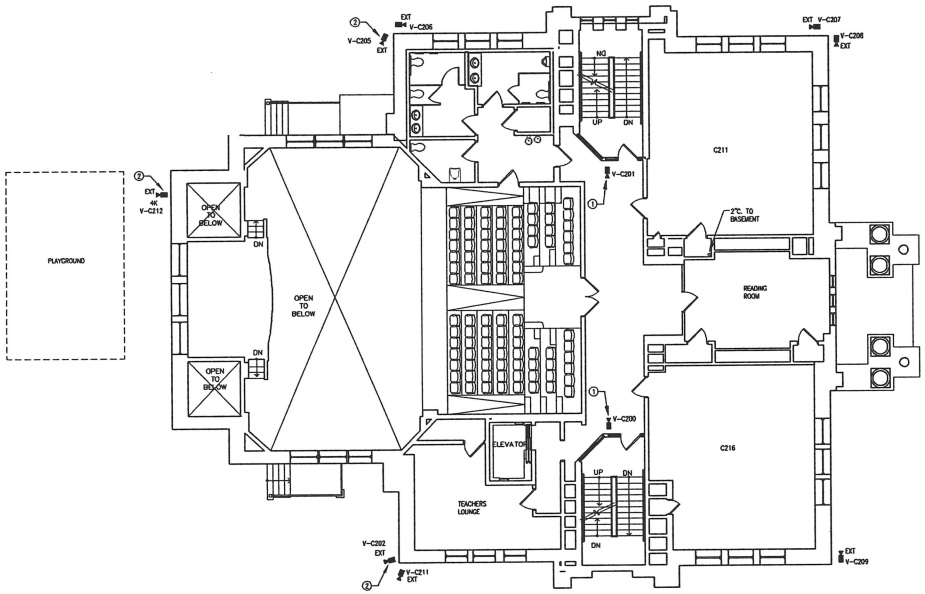
1. MOUNT CAMERA TO GLASS WALL MULLION.
2. PROVIDE SECURITY CAGE AROUND CAMERA.

NOTES:

1. ALL CAMERA CABLING TO MDF IN BASEMENT.



REF. NORTH

1 / TY102 SECOND LEVEL FLOOR PLAN – SECURITY

Scale: 1/8" = 1'-0"

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Sheet Contents

COLT ELEMENTARY

SECURITY SECOND LEVEL FLOOR PLAN

Project Number. 6468

Drawing No.

TY102.C

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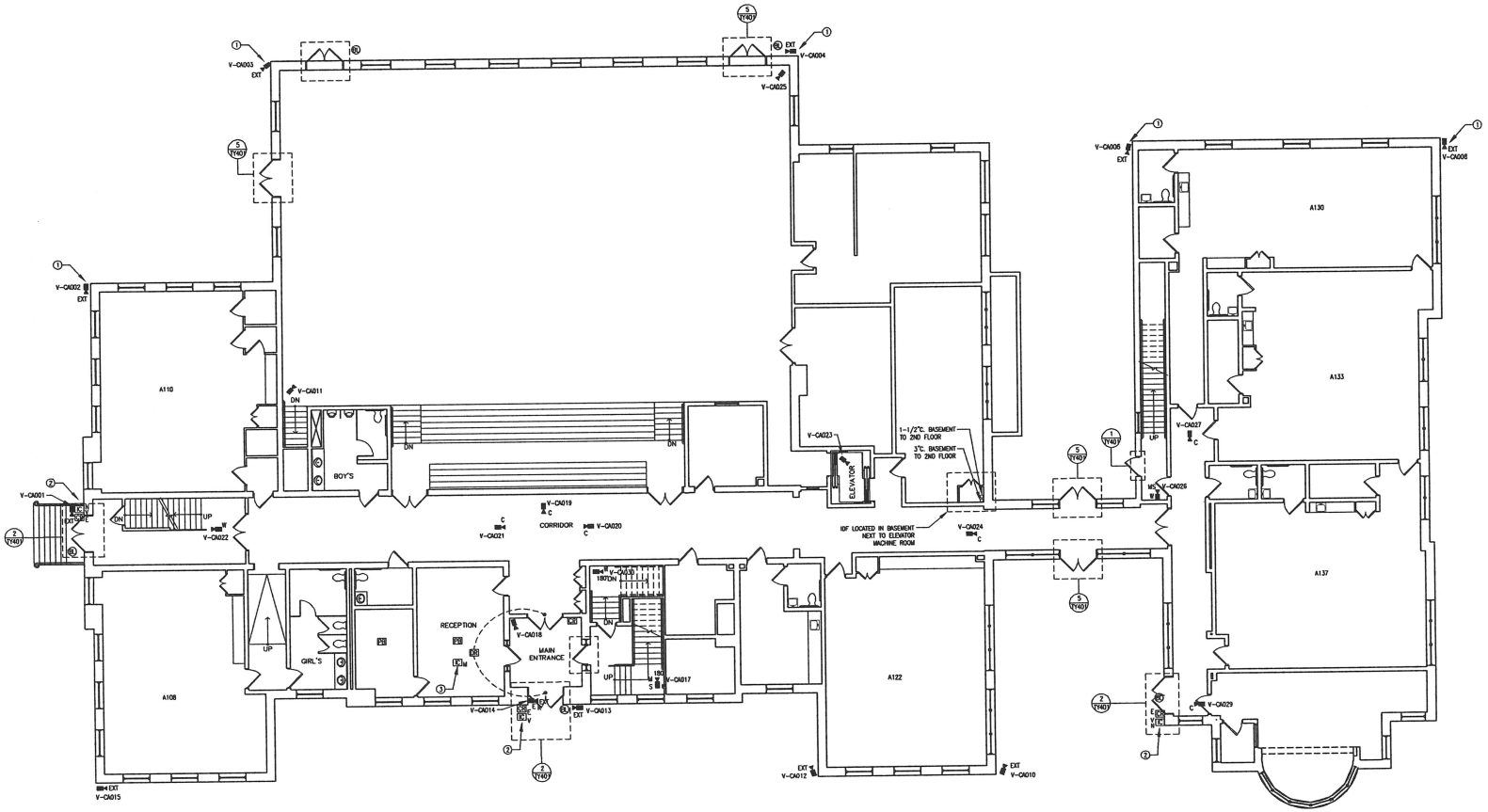

REF. NORTH

1 TY101 FIRST FLOOR PLAN – SECURITY

Scale: 1/8" = 1'-0"

KEY NOTES:

1. PROVIDE SECURITY CAGE AROUND CAMERA.
2. REPLACE EXISTING INTERCOM WITH VIDEO INTERCOM STATION. AXIS 8105E NETWORK VIDEO STATION.
3. MASTER INTERCOM SHALL BE YEALINK SIP-T58B VIDEO STATION.

NOTES:

ALL CAMERA CABLING TO THE MDF IN THE BASEMENT.

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Sheet Contents

COLT ANDREWS

SECURITY FIRST FLOOR PLAN

Project Number, 6468

Drawing No.

TY101.A

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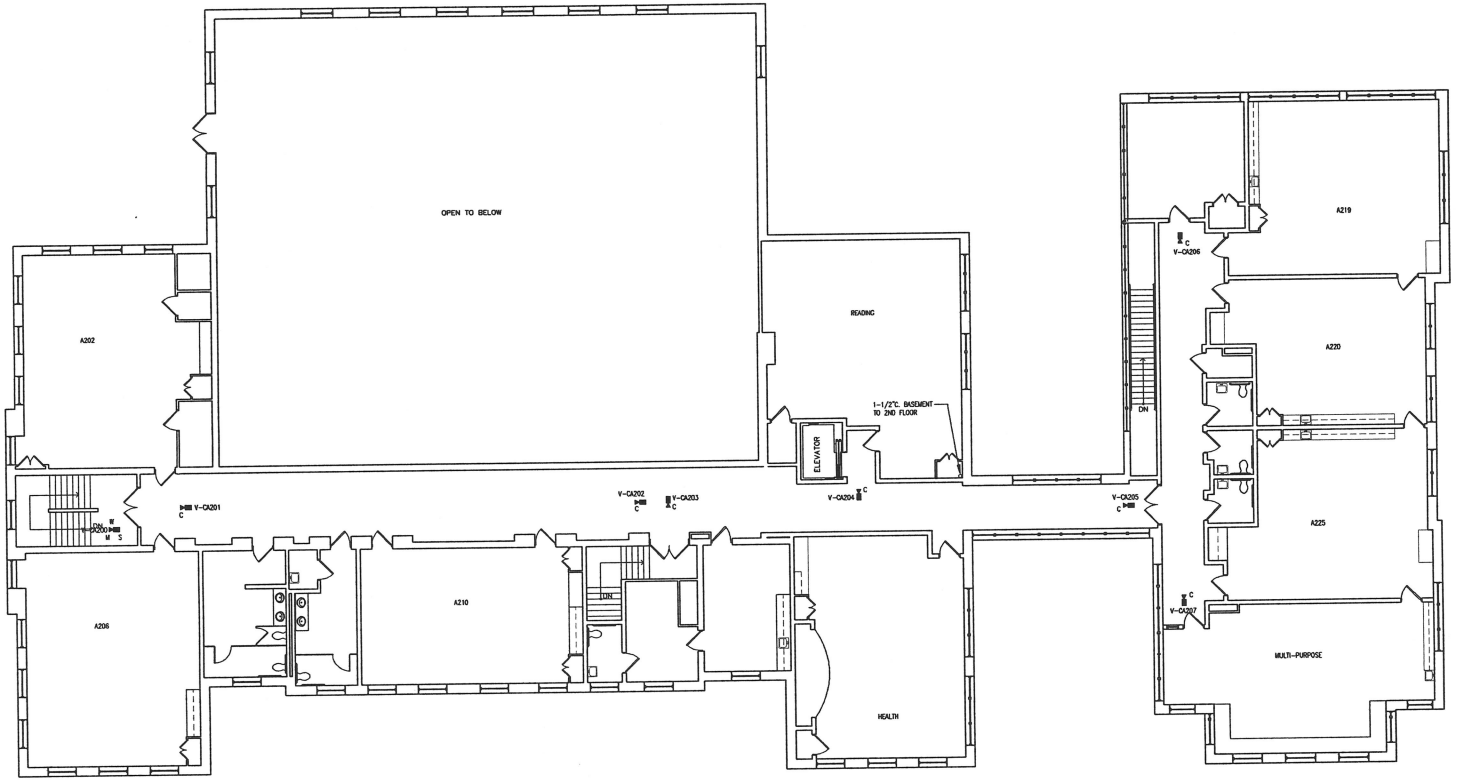

REF. NORTH

1 SECOND FLOOR PLAN – SECURITY

TY102 Scale: 1/8" = 1'-0"

NOTES:

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Sheet Contents

COLT ANDREWS

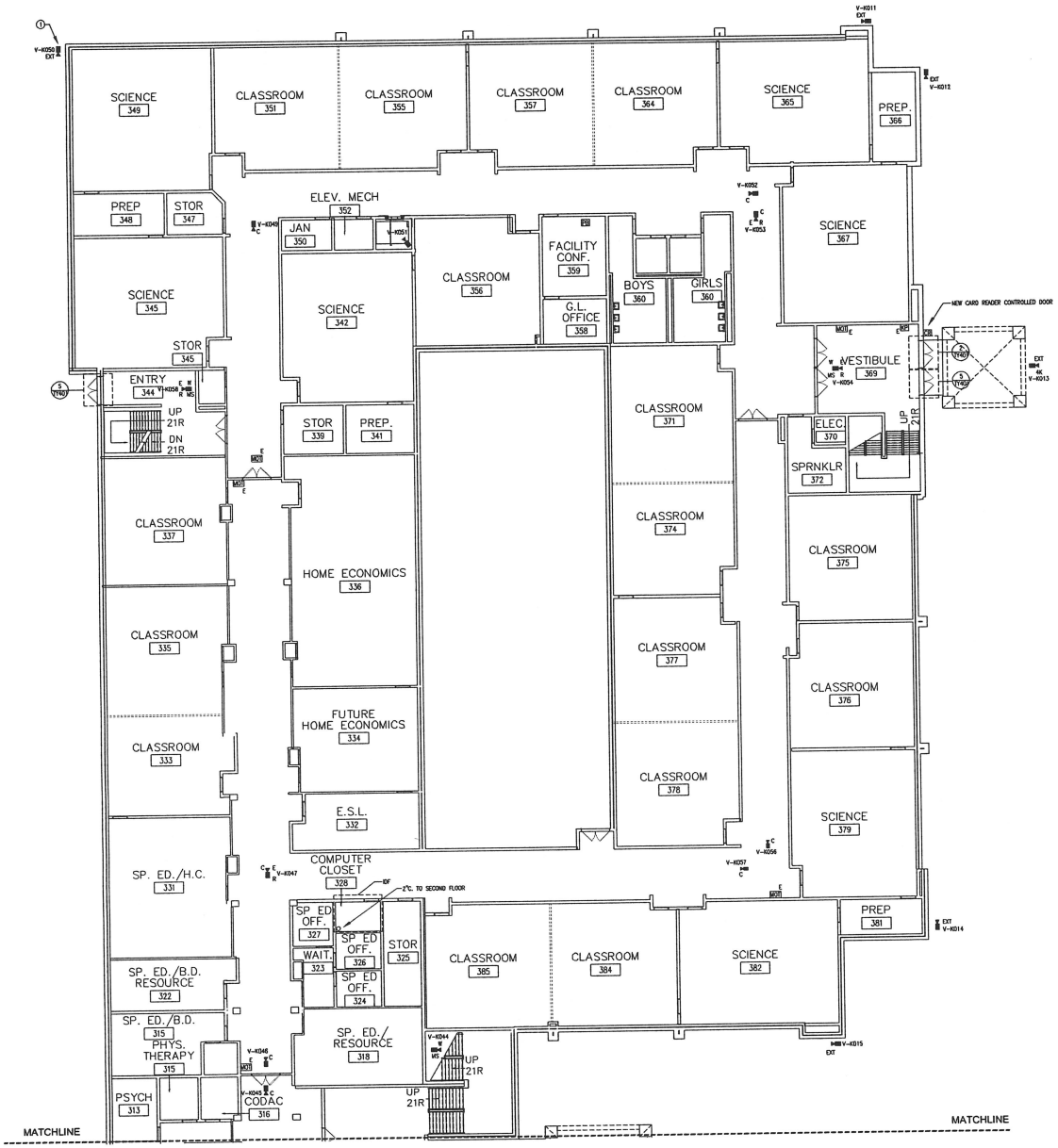
SECURITY SECOND FLOOR PLAN

Project Number. 6468

Drawing No.

TY102.A

Sheet of



REF. NORTH

1 GROUND PARTIAL FIRST FLOOR PLAN – SECURITY

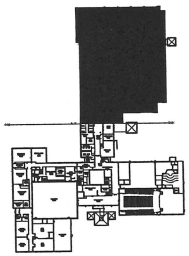
TY101B Scale: 3/32" = 1'-0"

KEY NOTES:

1. PROVIDE SECURITY CAGE AROUND CAMERA.

NOTES:

1. ALL CAMERA CABLING TO ROOM 328.
2. ALL CARD ACCESS AND INTRUSION CABLING TO IDF 01.



REF. NORTH

KEY PLAN

Scale: NTS

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Sheet Contents

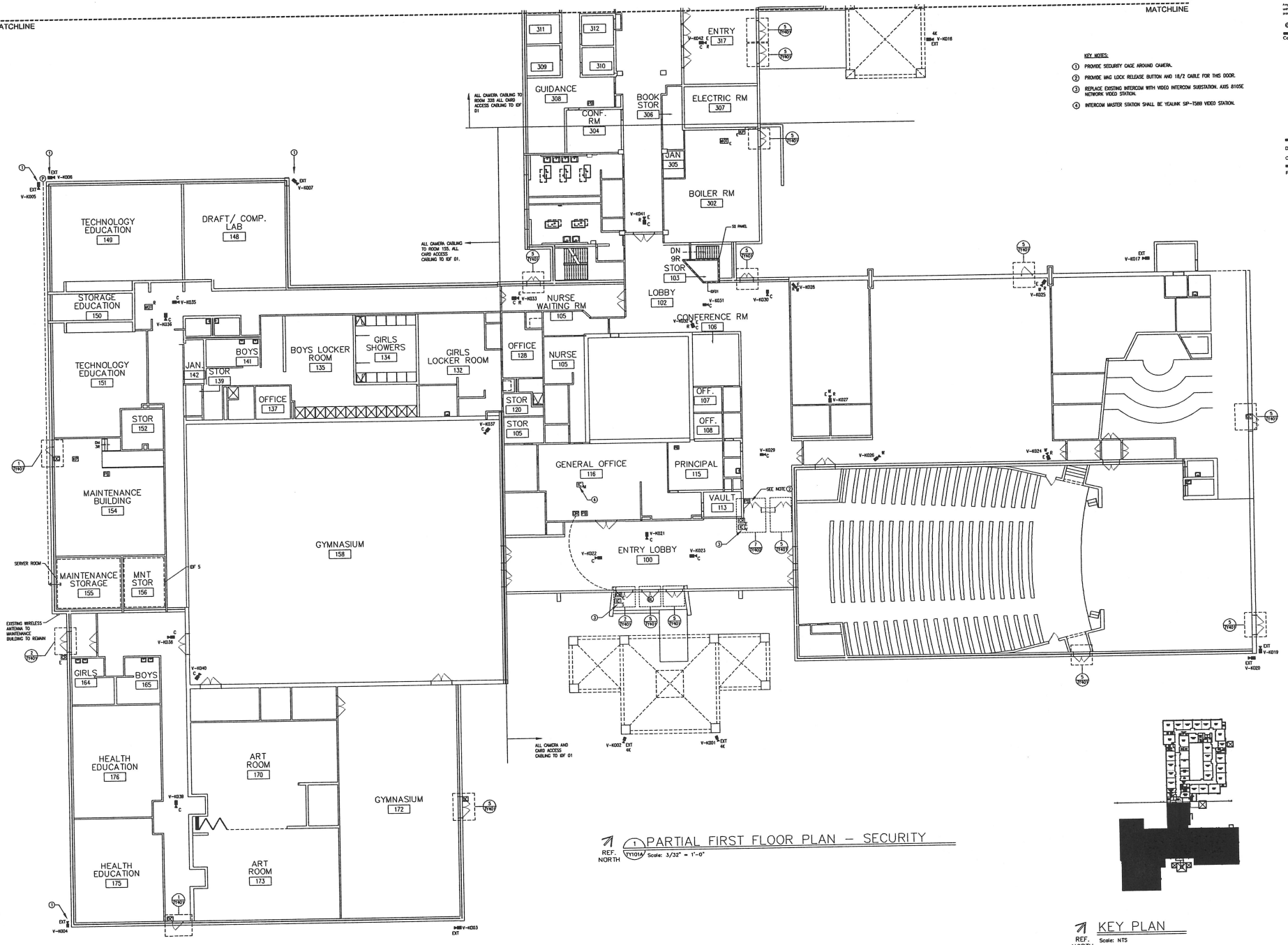
KICKEMUIT MS
SECURITY FIRST FLOOR PARTIAL PLAN
SECTION B

Project Number: 6468

Drawing No.

TY101.1K

Sheet of



REF. NORTH (1/TY101A) PARTIAL FIRST FLOOR PLAN – SECURITY
Scale: 3/32" = 1'-0"

KEY PLAN
REF. NORTH
Scale: NTS

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Sheet Contents
KICKEMUIT MS
SECURITY PARTIAL FIRST FLOOR PLAN - SECTION A

Project Number. 6468

Drawing No.
TY101.2K

Sheet of



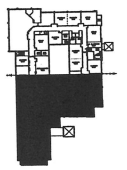
REF. NORTH

1 PARTIAL SECOND FLOOR PLAN – SECURITY

TY102A Scale: 3/32" = 1'-0"

NOTE:

1. ALL CAMERA CABLING TO ROOM 328 ON 1ST FLOOR.



REF. NORTH

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Scale: NTS

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Sheet Contents

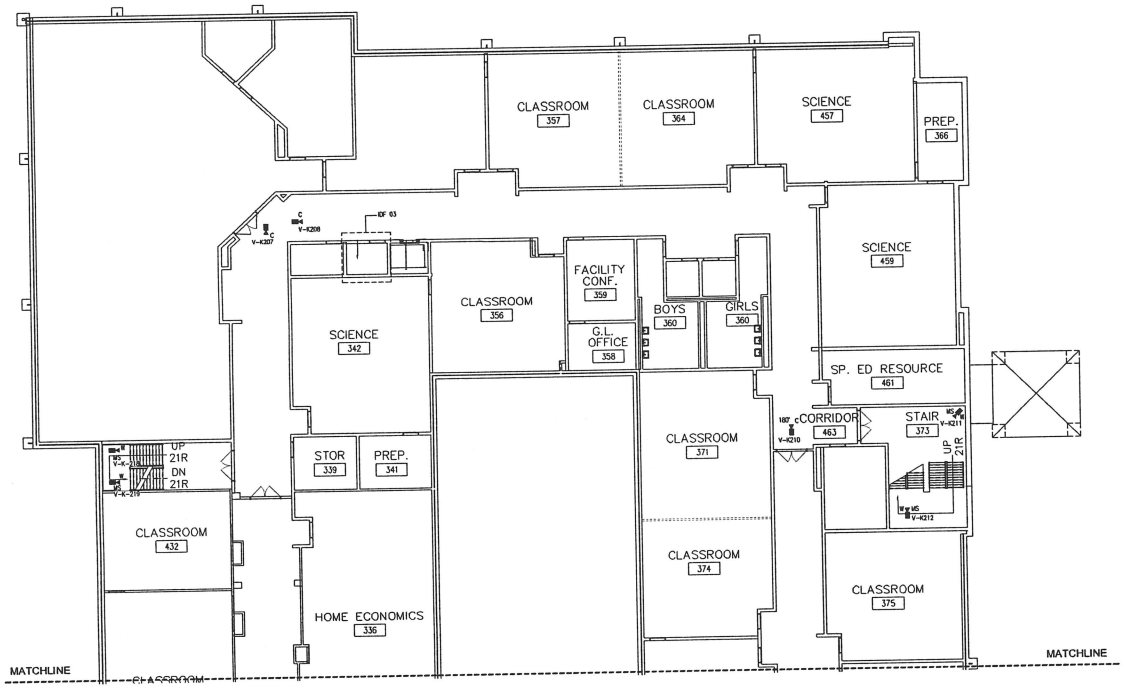
KICKEMUIT MS
SECURITY SECOND FLOOR PARTIAL PLAN
SECTION A

Project Number. 6468

Drawing No.

TY102.1K

Sheet of



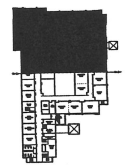
REF. NORTH

1 PARTIAL SECOND FLOOR PLAN – SECURITY

TY102B Scale: 3/32" = 1'-0"

NOTE:

1. ALL CAMERA CABLING TO ROOM 328 ON 1ST FLOOR.



REF. NORTH

KEY PLAN

Scale: NTS

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Sheet Contents

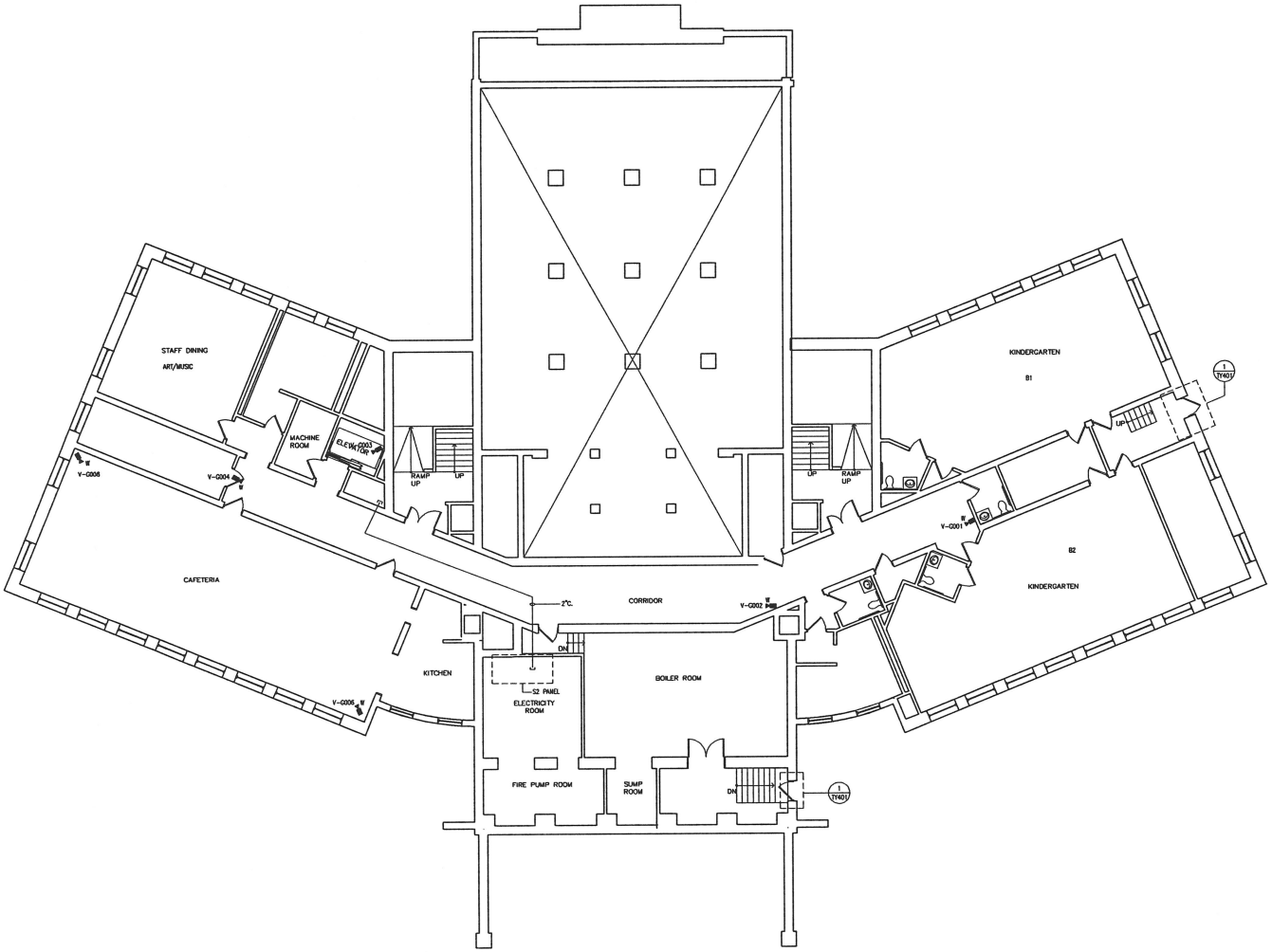
KICKEMUIT MS
SECURITY SECOND FLOOR PARTIAL PLAN SECTION B

Project Number. 6468

Drawing No.

TY102.2K

Sheet of



REF. NORTH

1 BASEMENT PLAN – SECURITY

TY1000 Scale: 1/8" = 1'-0"

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Sheet Contents

GUTIERAS

SECURITY BASEMENT PLAN

Project Number. 6468

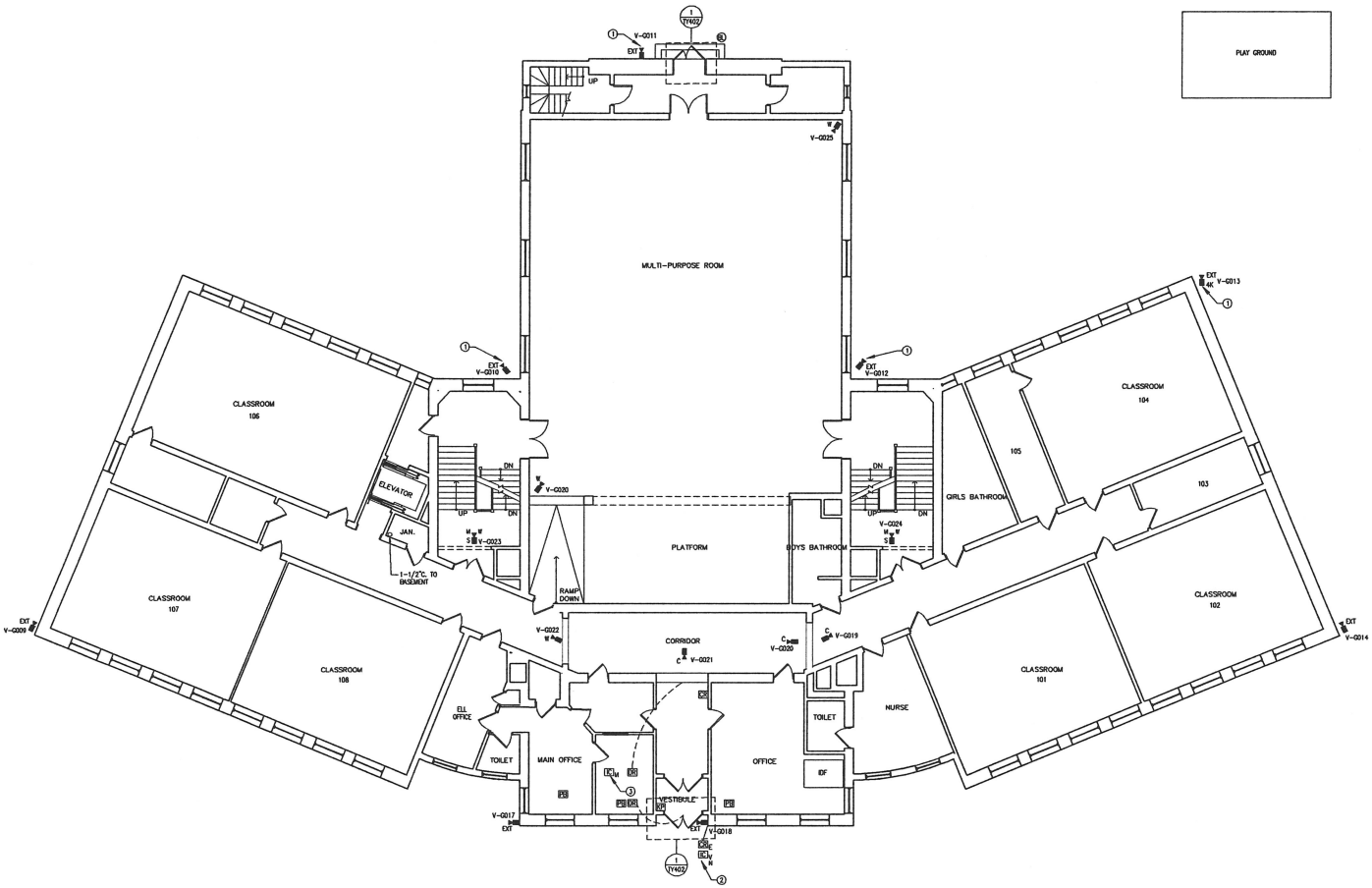
Drawing No.

TY100.G

Sheet of

KEY NOTES:

1. PROVIDE SECURITY CAGE AROUND CAMERA.
2. NEW VIDEO INTERCOM SHALL BE AXIS B105E NETWORK VIDEO STATION.
3. MASTER INTERCOM STATION SHALL BE YEALINK SIP-T58B VIDEO STATION.



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TY101G Scale: 1/8" = 1'-0"

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Project

Bristol-Warren Regional School District
Security Improvements

Mt. Hope High School
199 Chestnut St, Bristol, RI 02809
Guiteras Elementary School
35 Washington St, Bristol, RI 02809
Rockwell Elementary School
1225 Hope St, Bristol, RI 02809
Kickemuit Middle School
525 Child St, Warren, RI 02885
Hugh Cole Elementary School
50 Asylum Rd, Warren, RI 02885
Colt Andrews Elementary School
570-574 Hope St, Bristol, RI 02809

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Sheet Contents

GUTIERAS

SECURITY FIRST FLOOR PLAN

Project Number, 6468

Drawing No.

TY101.G

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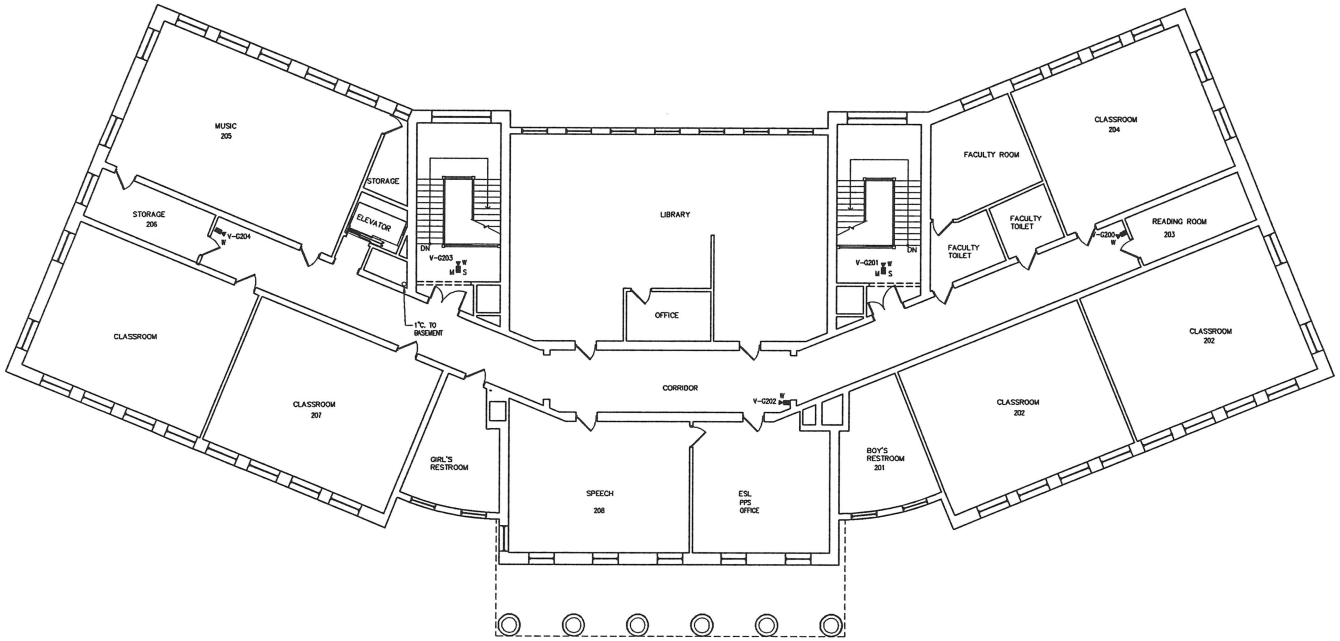

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Checked by

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SECURITY SECOND FLOOR PLAN

Project Number. 6468

Drawing No.

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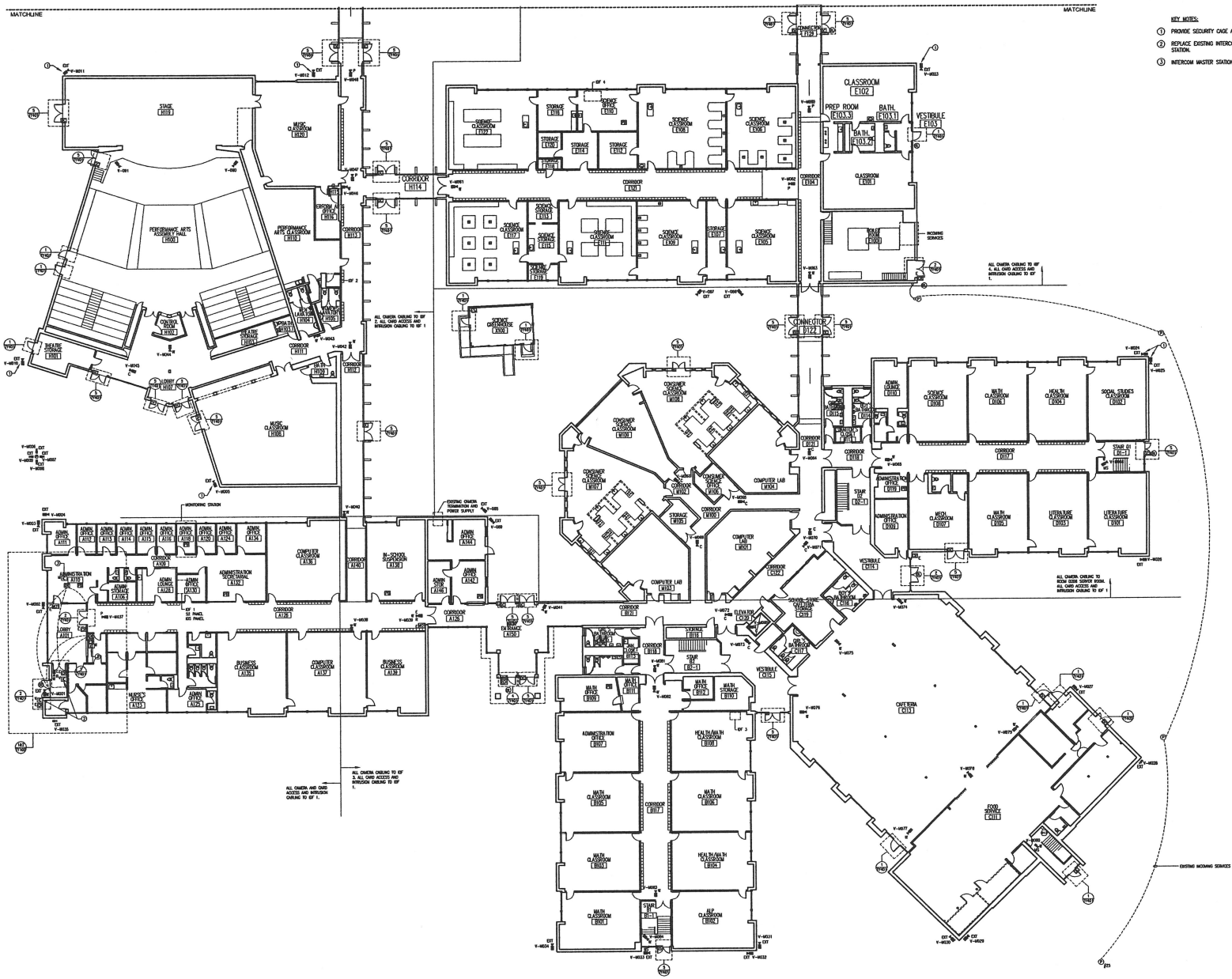

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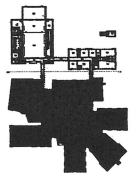

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SECURITY PARTIAL FIRST FLOOR PLAN - SECTION A

Project Number, 6468

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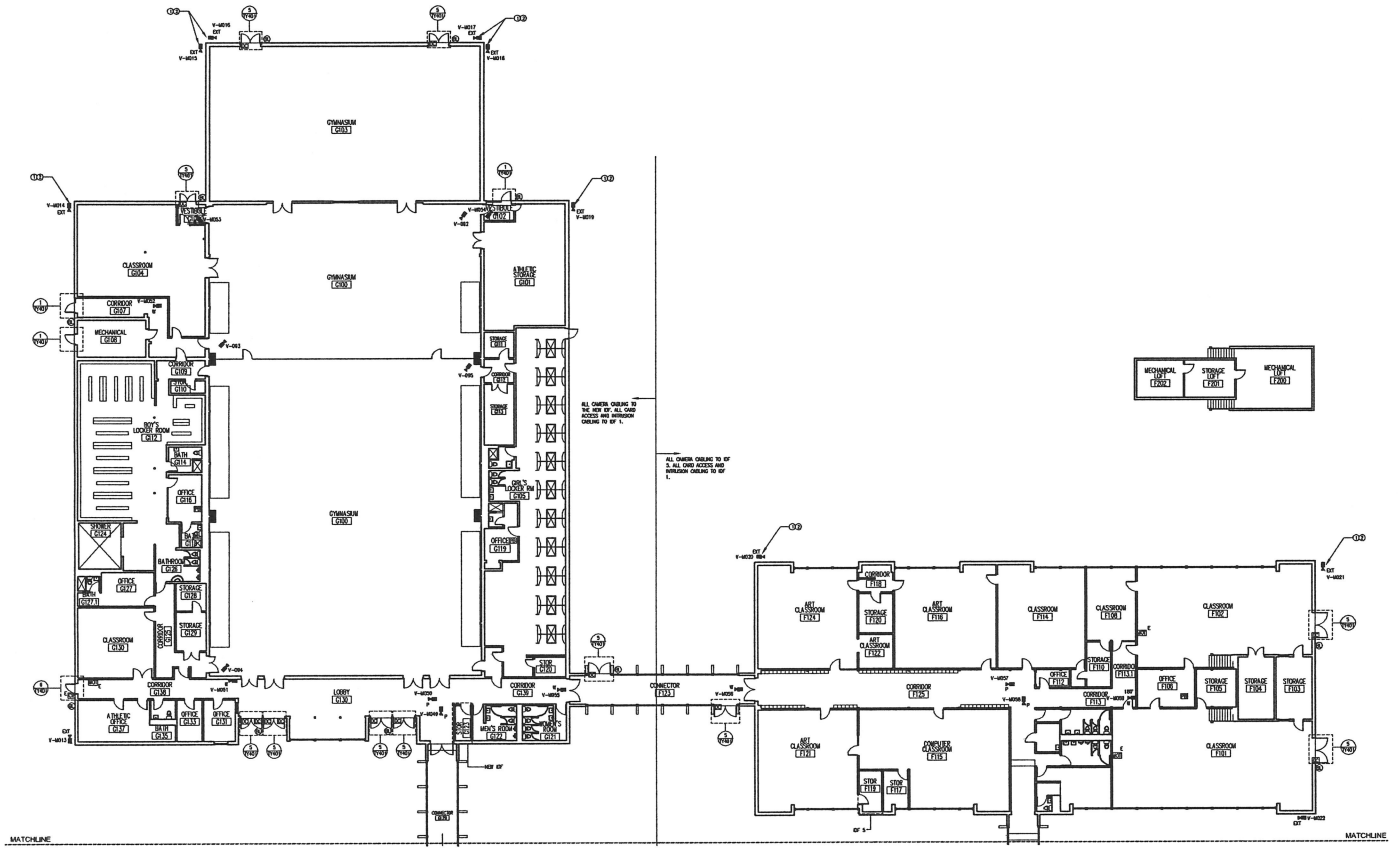

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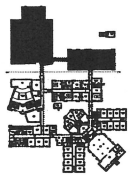
PARTIAL FIRST FLOOR PLAN – SECURITY



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Sheet Contents

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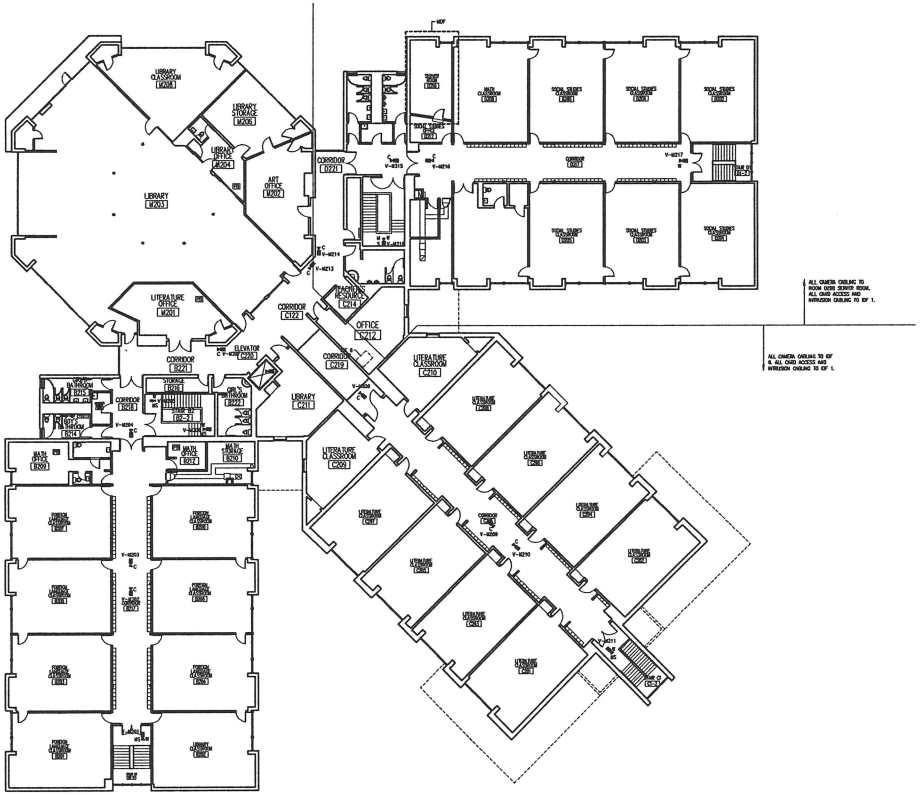

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MT. HOPE HS

SECURITY SECOND FLOOR PLAN

Project Number, 6468

Drawing No.

TY102.1M

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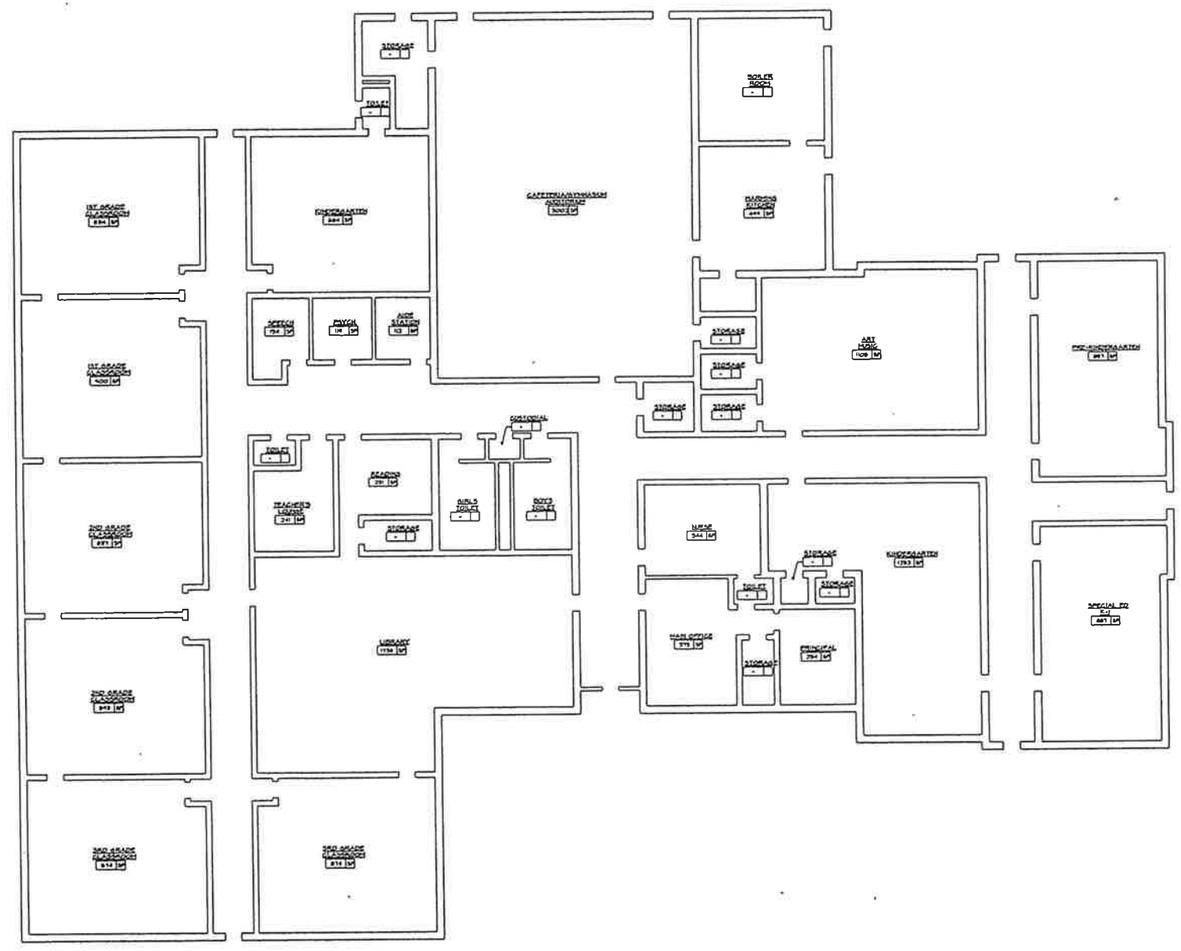

First Floor Plan

0 10' 20'

ROCKWELL ELEMENTARY SCHOOL
Bristol, Rhode Island

Mount Vernon Group
Architects and Planners

9: DISTRICT DEMOGRAPHICS

INCLUSIONS:

- Demographic Study - NESDEC



Bristol-Warren Regional School District
Bristol, RI

2022-23 Enrollment Projection Report

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Enrollment Summary

The global pandemic continues to influence our nation's public health and economic stability in unpredictable ways. As such, it is still too early to identify many of the factors that could impact school enrollments. Over the past school year, we have seen fluctuations in the real estate market and job trends, which have impacted student attendance patterns. Moreover, during the past school year, we have seen how school enrollment patterns can differ substantially from one district to another, with some districts losing students while others experience an influx of students.

We are pleased to send you this report displaying the past, present, and projected enrollments for the District. These ten-year projections are designed to provide the District with yearly, up-to-date enrollment information that can be used by boards and administrators for effective planning and allocation of resources. Included in this report are graphs representing historical and projected grade-by-grade enrollments, as well as historical and projected enrollments in grade combinations. We have received the figures given to us by the District, and we assume that the method of collecting the enrollment data has been consistent from year to year.

Enrollment projections are more reliable in Years #1-4 in the future and less reliable in the "out-years." Projections six to ten years out may serve as a guide to future enrollments and are useful for planning purposes. In light of this, NESDEC has added a "Second Semester Refresher" enrollment projection at no cost to affiliates. (For more information please refer to the Reliability and Use of This Document section.)

The NESDEC enrollment projection fell within 102 students of the K-12 total, 2,876 students projected vs. 2,774 enrolled.

Births decreased by -27 from a previous ten-year average of 246 to a projected average of 219, which could have an impact on Kindergarten enrollments. In most districts, enrollments in Grades 1-8 are very stable. However, there have been decreases in 5 of the 8 most recent years, leading to a net decrease averaging -26 students per year.

Of note, the number of residents in K-12 non-public Schools increased from 98 students in 2021-22 to 369 students reported in 2022-23.

Over the next three years, K-5 enrollments are projected to decrease by -81 students, Grades 6-8 are projected to decrease by -38 students and Grades 9-12 are projected to decrease by -70 students, as students move through the grades.

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Historical Enrollment

School District: **Bristol-Warren RSD, RI** **12/16/2022**

Historical Enrollment By Grade																			
Birth Year	Births*	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2007	271	2012-13	39	255	305	261	240	297	248	255	250	234	281	278	245	253	0	3402	3441
2008	256	2013-14	44	279	245	301	262	248	295	244	250	249	272	257	248	236	0	3386	3430
2009	265	2014-15	48	253	282	243	296	257	242	289	237	244	259	218	206	246	0	3272	3320
2010	285	2015-16	44	244	238	290	241	299	267	231	284	238	263	231	196	224	0	3246	3290
2011	247	2016-17	60	219	236	218	279	238	293	249	233	279	285	210	214	205	0	3158	3218
2012	242	2017-18	45	253	221	246	223	275	245	283	247	228	260	226	248	226	0	3181	3226
2013	243	2018-19	76	227	248	240	254	246	274	250	296	249	237	278	237	268	0	3304	3380
2014	219	2019-20	45	242	209	232	227	239	233	257	243	275	233	217	265	277	0	3149	3194
2015	217	2020-21	30	198	227	219	225	219	236	231	245	224	260	233	217	266	0	3000	3030
2016	216	2021-22	39	198	196	207	214	220	220	219	235	237	216	254	235	245	0	2896	2935
2017	240	2022-23	60	211	199	195	202	215	225	210	221	218	221	193	244	220	0	2774	2834

*Birth data provided by Public Health Vital Records Departments in each state.

Historical Enrollment in Grade Combinations									
Year	PK-5	K-5	K-6	K-8	5-8	6-8	7-8	6-12	9-12
2012-13	1645	1606	1861	2345	987	739	484	1796	1057
2013-14	1674	1630	1874	2373	1038	743	499	1756	1013
2014-15	1621	1573	1862	2343	1012	770	481	1699	929
2015-16	1623	1579	1810	2332	1020	753	522	1667	914
2016-17	1543	1483	1732	2244	1054	761	512	1675	914
2017-18	1508	1463	1746	2221	1003	758	475	1718	960
2018-19	1565	1489	1739	2284	1069	795	545	1815	1020
2019-20	1427	1382	1639	2157	1008	775	518	1767	992
2020-21	1354	1324	1555	2024	936	700	469	1676	976
2021-22	1294	1255	1474	1946	911	691	472	1641	950
2022-23	1307	1247	1457	1896	874	649	439	1527	878

Historical Percentage Changes			
Year	K-12	Diff.	%
2012-13	3402	0	0.0%
2013-14	3386	-16	-0.5%
2014-15	3272	-114	-3.4%
2015-16	3246	-26	-0.8%
2016-17	3158	-88	-2.7%
2017-18	3181	23	0.7%
2018-19	3304	123	3.9%
2019-20	3149	-155	-4.7%
2020-21	3000	-149	-4.7%
2021-22	2896	-104	-3.5%
2022-23	2774	-122	-4.2%
Change		-628	-18.5%

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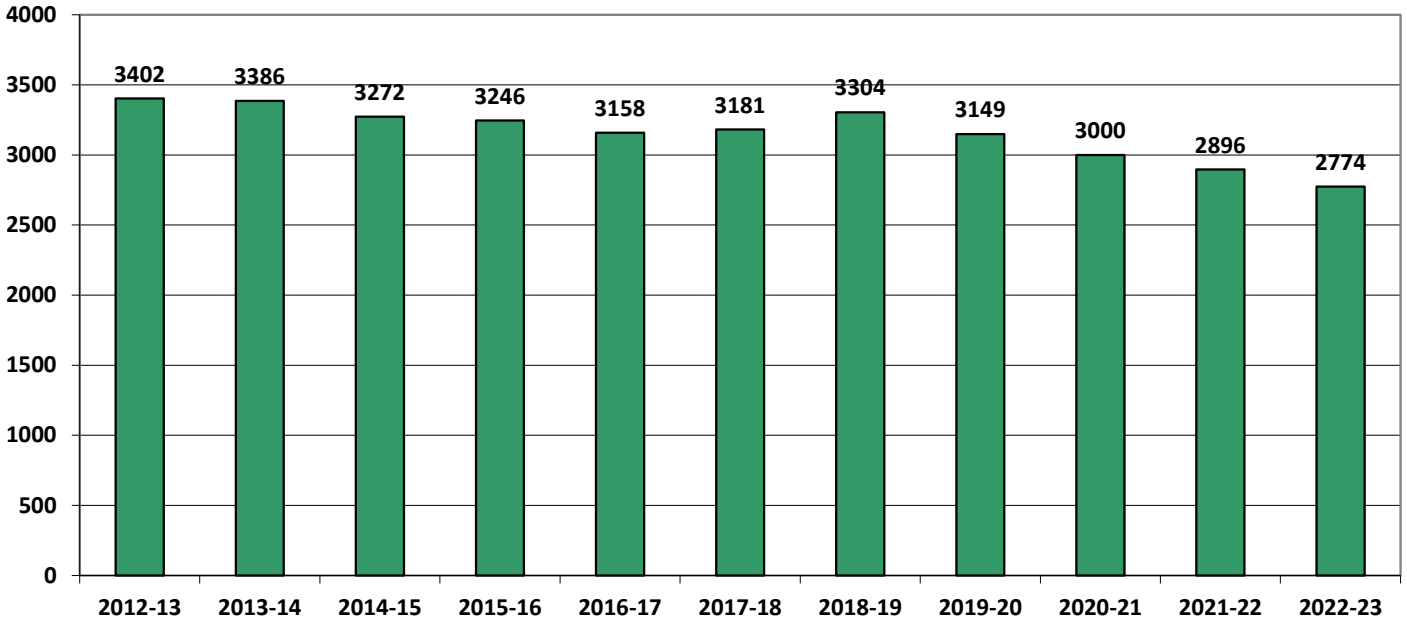
Historical Enrollment

K-12, School Years 2012-13 to 2022-23



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Projected Enrollment

School District: Bristol-Warren RSD, RI **12/16/2022**

Enrollment Projections By Grade*																				
Birth Year	Births*		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2017	240		2022-23	60	211	199	195	202	215	225	210	221	218	221	193	244	220	0	2774	2834
2018	198		2023-24	61	189	205	197	193	202	214	217	211	212	216	203	195	254	0	2708	2769
2019	193		2024-25	62	184	183	203	195	193	201	207	218	203	210	199	205	203	0	2604	2666
2020	229		2025-26	63	219	178	181	201	195	192	194	208	209	201	193	201	213	0	2585	2648
2021	236		2026-27	64	225	212	176	179	201	194	185	195	200	207	185	195	209	0	2563	2627
2022	219	(est.)	2027-28	65	209	218	210	174	179	200	187	186	187	198	190	187	203	0	2528	2593
2023	215	(est.)	2028-29	66	205	203	216	208	174	178	193	188	179	185	182	192	194	0	2497	2563
2024	218	(est.)	2029-30	67	209	199	201	214	208	173	172	194	180	177	170	184	200	0	2481	2548
2025	224	(est.)	2030-31	68	213	203	197	199	214	207	167	173	186	178	163	172	191	0	2463	2531
2026	222	(est.)	2031-32	69	212	207	201	195	199	213	200	168	166	184	164	165	179	0	2453	2522
2027	220	(est.)	2032-33	70	210	206	205	199	195	198	206	201	161	164	169	166	172	0	2452	2522

Note: Ungraded students (UNGR) often are high school students whose anticipated years of graduation are unknown, or students with special needs - UNGR not included in Grade Combinations for 7-12, 9-12, etc.

Based on an estimate of births Based on children already born Based on students already enrolled

*Birth data provided by Public Health Vital Records Departments in each state.

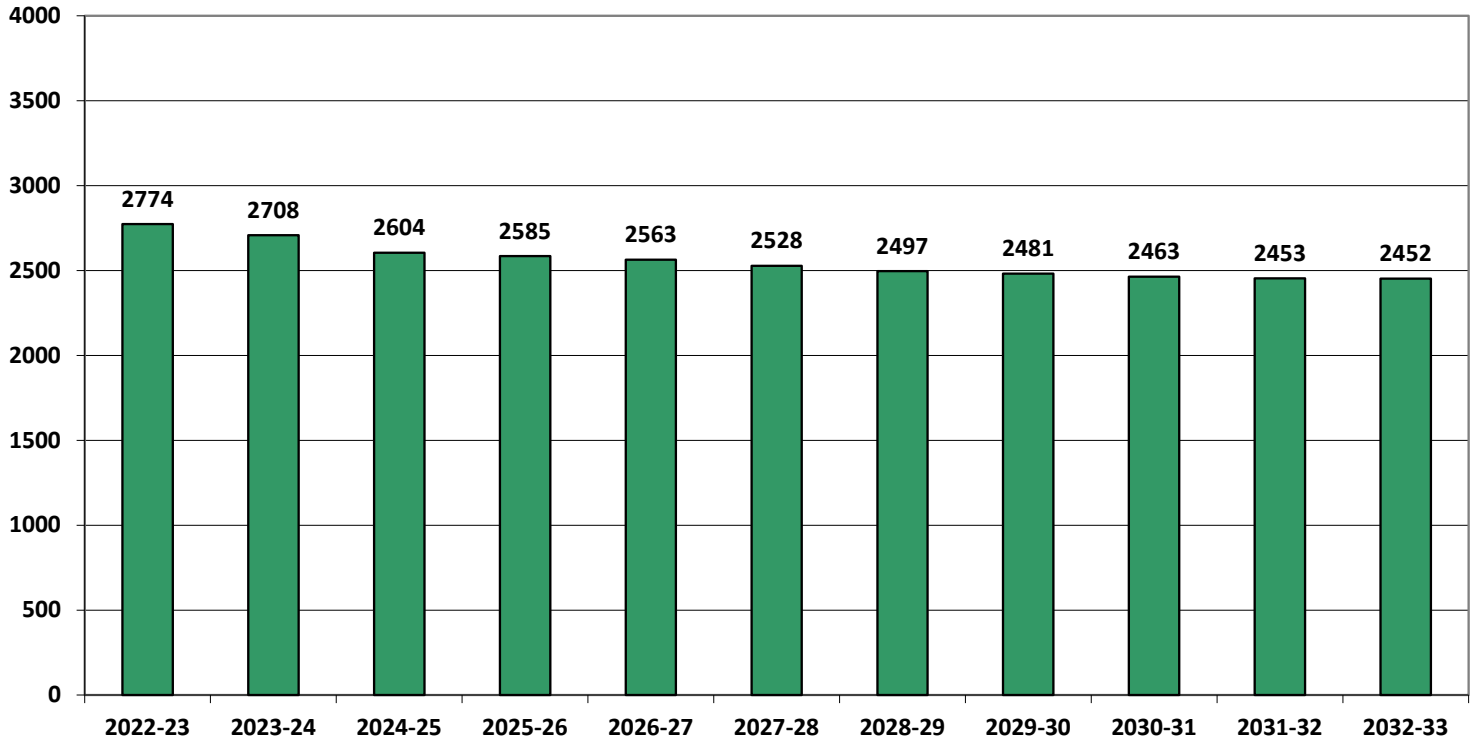
Projected Enrollment in Grade Combinations*									
Year	PK-5	K-5	K-6	K-8	5-8	6-8	7-8	6-12	9-12
2022-23	1307	1247	1457	1896	874	649	439	1527	878
2023-24	1261	1200	1417	1840	854	640	423	1508	868
2024-25	1221	1159	1366	1787	829	628	421	1445	817
2025-26	1229	1166	1360	1777	803	611	417	1419	808
2026-27	1251	1187	1372	1767	774	580	395	1376	796
2027-28	1255	1190	1377	1750	760	560	373	1338	778
2028-29	1250	1184	1377	1744	738	560	367	1313	753
2029-30	1271	1204	1376	1750	719	546	374	1277	731
2030-31	1301	1233	1400	1759	733	526	359	1230	704
2031-32	1296	1227	1427	1761	747	534	334	1226	692
2032-33	1283	1213	1419	1781	766	568	362	1239	671

Projected Percentage Changes			
Year	K-12	Diff.	%
2022-23	2774	0	0.0%
2023-24	2708	-66	-2.4%
2024-25	2604	-104	-3.8%
2025-26	2585	-19	-0.7%
2026-27	2563	-22	-0.9%
2027-28	2528	-35	-1.4%
2028-29	2497	-31	-1.2%
2029-30	2481	-16	-0.6%
2030-31	2463	-18	-0.7%
2031-32	2453	-10	-0.4%
2032-33	2452	-1	0.0%
Change		-322	-11.6%

*Projections should be updated annually to reflect changes in in/out-migration of families, real estate sales, residential construction, births, and similar factors.

Projected Enrollment

K-12, School Years 2022-23 to 2032-33



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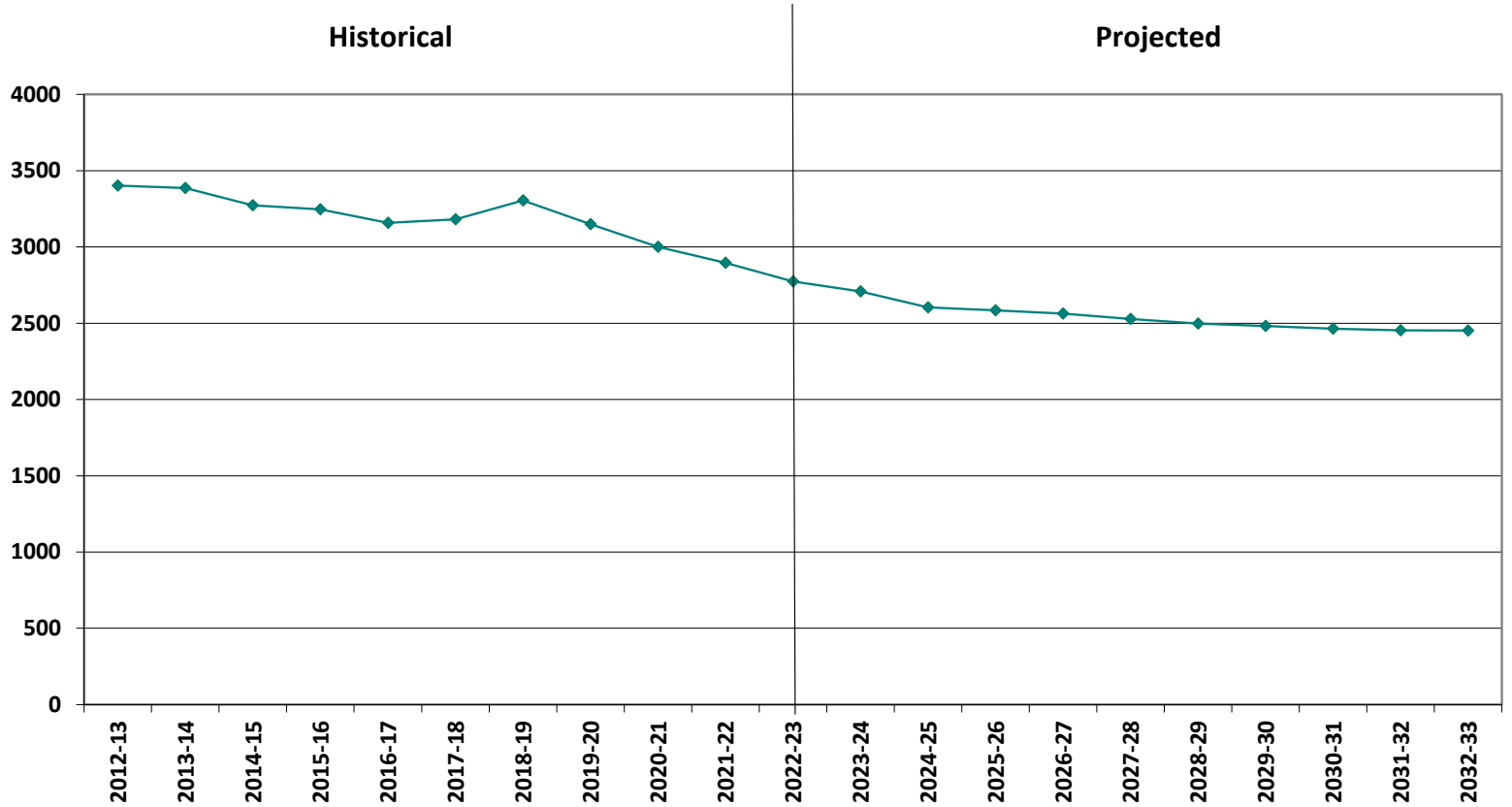
Historical & Projected Enrollment



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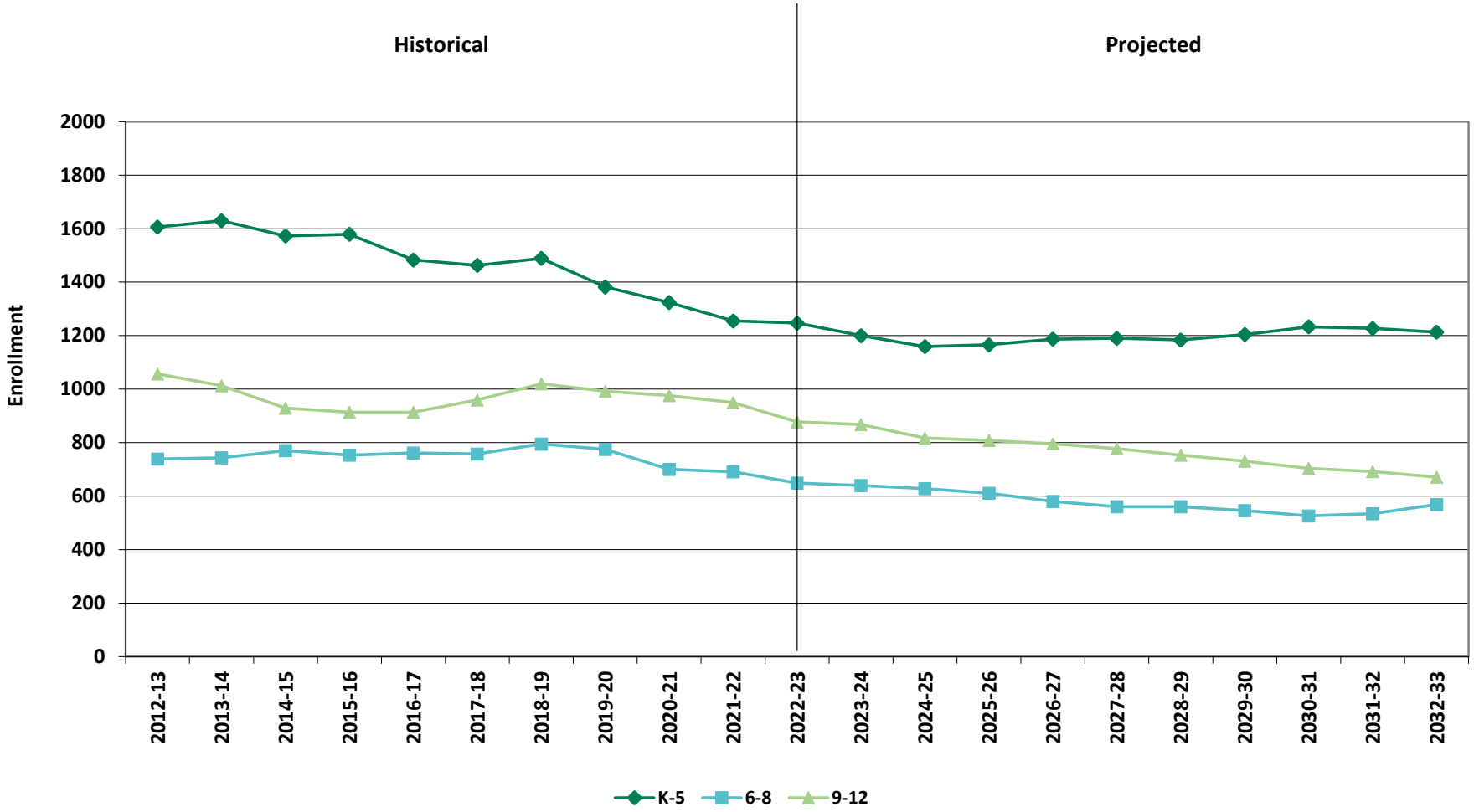
Historical & Projected Enrollments in Grade Combinations



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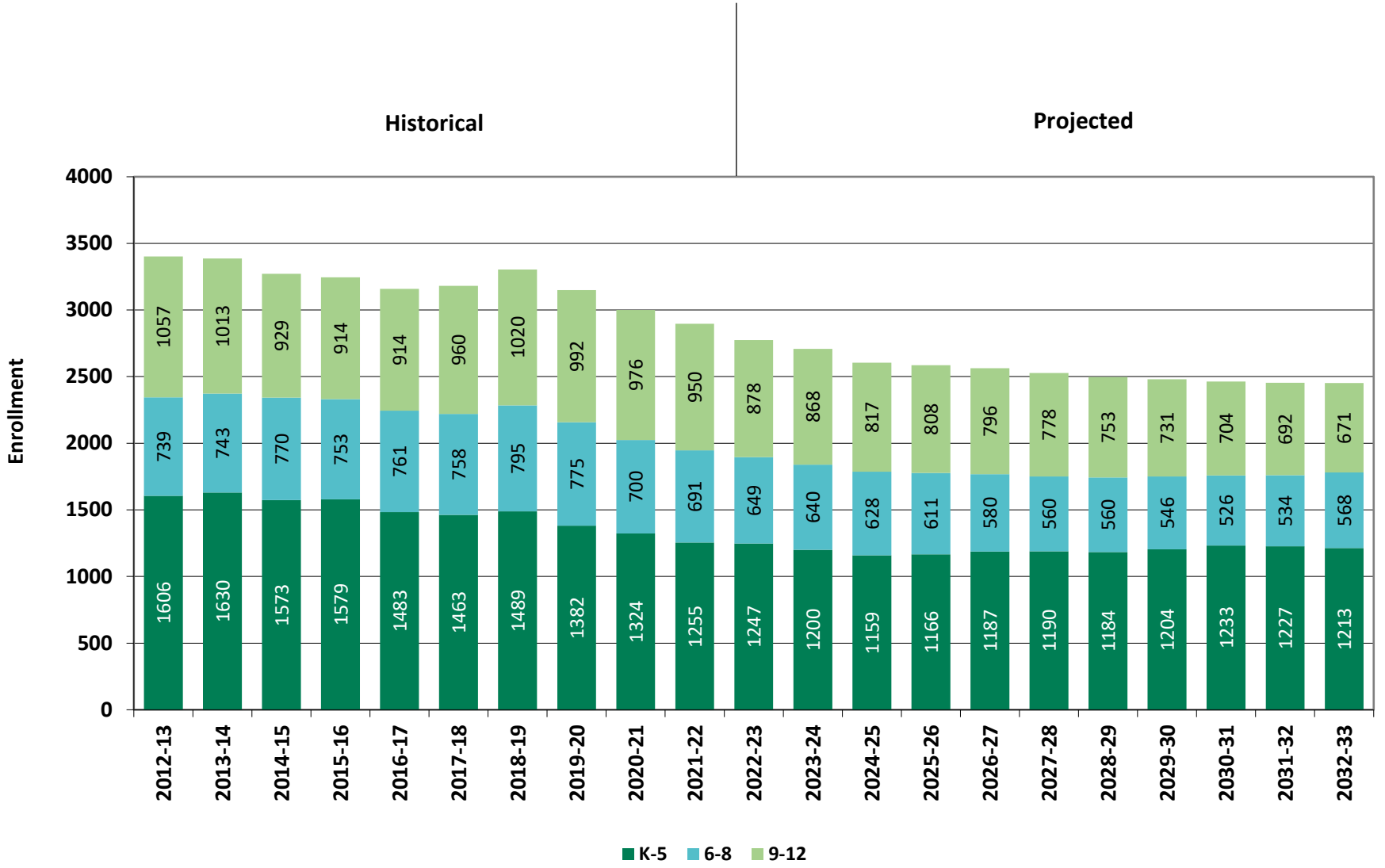
Historical & Projected Enrollments in Grade Combinations



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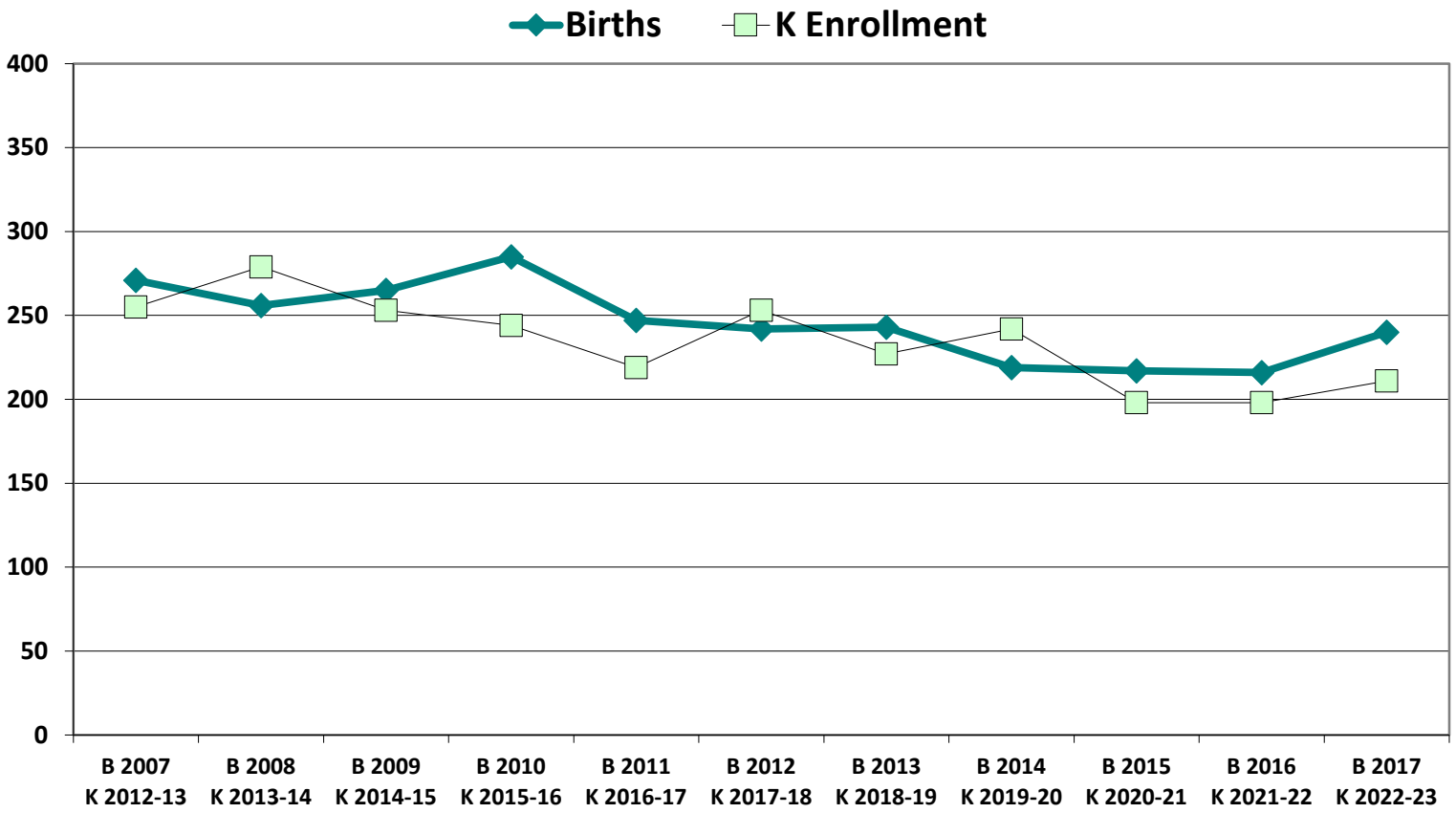
Birth-to-Kindergarten Relationship



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Additional Information

Building Permits Issued (Source: HUD)		
Year	Single-Family	Multi-Units
2012	15	0
2018	22	102
2019	28	0
2020	34	0
2021	30	15
2022	24 to date	20 to date

Enrollment History*		
Year	Career-Tech 9-12 Total	Non-Public K-12 Total
2012-13	8	534
2018-19	29	474
2019-20	26	232
2020-21	28	248
2021-22	31	93
2022-23	10	369

Residents in Non-Public Independent and Parochial Schools (General Education)*														
Oct. 1 Enrollment	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	18	19	23	20	20	24	42	31	43	31	26	29	43	369

K-12 Home-Schooled Students*	
2022	62

K-12 Residents in Charter or Magnet Schools, or Choiced-out*	
2022	57

K-12 Special Education Outplaced Students*	
2022	39

K-12 Tuitioned-In, Choiced-In, & Other Non-Residents*	
2022	< 10

*The above data were provided by the District, with the exception of building permit data (provided by HUD).

"n/a" signifies that information was not provided by District.

** < 10 Not reported to protect subgroups with fewer than 10 students

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New England's PK-12 Enrollment Trends

From 2020 to 2030, the US Department of Education anticipates changes in PK-12 enrollment of -2.4% in the South, -6.5% in the West, -3.8% in the Midwest, -6.2% in the Northeast, and a total of -4.3% nationwide.

State	Fall 2020 PK - 12	Fall 2030 Projected	PK-12 Decline	% Change 2020-2030
CT	509,058	475,600	-33,458	-6.6%
ME	172,455	161,800	-10,655	-6.2%
MA	921,712	879,900	-41,812	-4.5%
NH	169,027	144,600	-24,427	-14.5%
RI	139,184	130,200	-8,984	-6.5%
VT	82,401	74,600	-7,801	-9.5%

Source: U.S. Department of Education, National Center for Education Statistics, *Enrollment In Public Schools fall 1990 to fall 2030* , Table 203.20, March 2022.

Although most New England Districts are seeing a decline in the number of births, NESDEC's experience indicates that the impact on enrollment varies from District to District. Almost half of New England Districts have been growing in PK-12 enrollment, and a similar number are declining (often in rural areas), with the other Districts remaining stable.

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Reliability and Use of this Document

PROJECTION METHODOLOGY

Cohort component (survival) technique is a frequently used method of preparing enrollment forecasts. NESDEC uses this method, but modifies it in order to move away from forecasts that are wholly computer- or formula-driven. Such modification permits the incorporation of important, current district-specific information into the generation of enrollment forecasts (such as in/out-migration of students, resident births, HUD-reported building permits, etc.). Percentages are calculated from the historical enrollment data to determine a reliable percentage of increase or decrease in enrollment between any two grades. For example, if 100 students enrolled in Grade 1 in 2018-19 increased to 104 students in Grade 2 in 2019-20, the percentage of survival would be 104%, or a ratio of 1.04. Ratios are calculated between each pair of grades or years in school over several recent years.

After study and analysis of the historical ratios, and based upon a reasonable set of assumptions regarding births, migration rates, retention rates, etc., ratios most indicative of future growth patterns are determined for each pair of grades. The ratios thus selected are applied to the present enrollment statistics to project into future years. The ratios are the key factors in the reliability of the projections, assuming validity of the data at the starting point.

RELIABILITY OF ENROLLMENT PROJECTIONS

Projections can serve as useful guides to school administrators for educational planning. Enrollment projections are more reliable in Years #1-4 in the future and less reliable in the "out-years." Projections six to ten years out may serve as a guide to future enrollments and are useful for planning purposes, but they should be viewed as subject to change given the likelihood of potential shifts in underlying assumptions/trends, such as student migration, births as they relate to Kindergarten enrollment, and other factors.

Projections that are based upon **the children who already are in the district** (the current K-12 population only) will be the most reliable. The second level of reliability will be for those children already **born into the community but not yet old enough to be in school.** The least reliable category is the group for which an estimate must be made **to predict the number of births**, thereby adding additional uncertainty. See these three multi-colored groupings on the "Projected Enrollment" tab.

Annual updates allow for early identification of recent changes in historical trends. When the actual enrollment in a grade is significantly different (higher or lower) from the projected number, it is important (yet difficult) to determine whether this is a one-year aberration or whether a new trend may have begun. **In light of this possibility, NESDEC urges all school districts to have updated enrollment forecasts developed by NESDEC each October.** This service is available at no cost to affiliated school districts.

USING THIS INFORMATION ELECTRONICALLY

If you would like to extract the information contained in this report for your own documents or presentations, you can use screenshots, which can be inserted into PowerPoint slides, Word documents, etc. Because screenshots create graphics, the image is not editable. Please feel free to contact us if you need assistance in this matter, by phone (508-481-9444) or by email (ep@nesdec.org).

10: CROSS DISTRICTING DUE DILIGENCE

INCLUSIONS:

- Cross District Due Diligence Statement
- Neighboring District Demographics
  - Barrington
  - Portsmouth
  - Tiverton
- Economic Impact
- Individual School Capacities

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
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Ana C. Riley
Superintendent of Schools

Cross District Due Diligence Statement

The Town's of Bristol and Warren are currently regionalized to create the Bristol Warren Regional School District, The projects currently included in the 5-year plan do not lend themselves to additional cross districting opportunities or efficiencies.

Included on the following pages are datasets from neighboring and/or similar communities to the towns of Bristol and Warren.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

Barrington

LEA Summary

Barrington totals 472,150 square feet and consists of the school type(s) detailed below. School(s) were visited three times during the Statewide Facilities Assessment by teams of specialists from February-March 2016. This report provides LEA summary findings for the statewide assessment program.

School Type by Count



School Type	SqFt
Elementary School	152,050
Middle School	142,500
High School	177,600
Total:	**472,150**

Demographics

Enrollment is projected to increase by 4.5% over the next 10 years in Barrington. The total LEA enrollment at 6 school(s) is 3,301 students with a total capacity of 4,010 as reported by the LEA. Utilization is calculated by dividing enrollment by capacity, resulting in 82.3% utilization at Barrington.

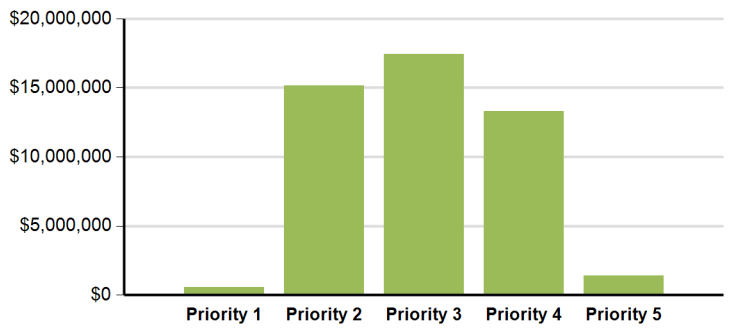
82.3 % Utilization



Educational Program Space Analysis

In Barrington there are 242 instructional spaces; of these spaces 15.7% meet or exceed the space size standards. Of the total current deficiencies identified, $4,758,717 are related to the educational program space assessment. Addressing these identified deficiencies will improve the learning environment and bring the school(s) in the district closer to 21st century learning facilities.

Total Current Deficiencies



Five Year Need Summary

The current deficiencies total $47,855,594, with 36.5% categorized as Priority 3 and another 31.7% as Priority 2. The building systems with the highest current deficiency costs are Interior and Technology.

The projected life cycle need in Years 1 through 5 is $11,114,667. It is anticipated that the majority of the need will occur in Year 3. School(s) with the greatest need are represented in the adjacent table and make up 75.3% of the combined 5-Year need at Barrington.

School(s) with Greatest Need	Combined 5-Year Need
Barrington Middle School	$23,439,460
Barrington High School	$12,312,369
Nayatt School	$8,675,317

Five Year Facility Condition Index (FCI)

For master planning purposes, the total current deficiencies, less new construction, and the first 5 years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-Year FCI was calculated by dividing the 5-Year need by the total replacement cost. The 5-Year need is $58,970,261 with a district replacement value of $164,178,500. The resulting 5-Year FCI is 35.9%.

5-Year FCI Ranges



LEA Summary Data

Gross SqFt	Avg Year Built	Current Deficiencies (Less New Construction)	Life Cycle Year 1-5 Total	Total 5-Year Need (Year 1-5 + Current Defs)	5-Year FCI
472,150	1955	$47,855,594	$11,114,667	$58,970,261	35.9%

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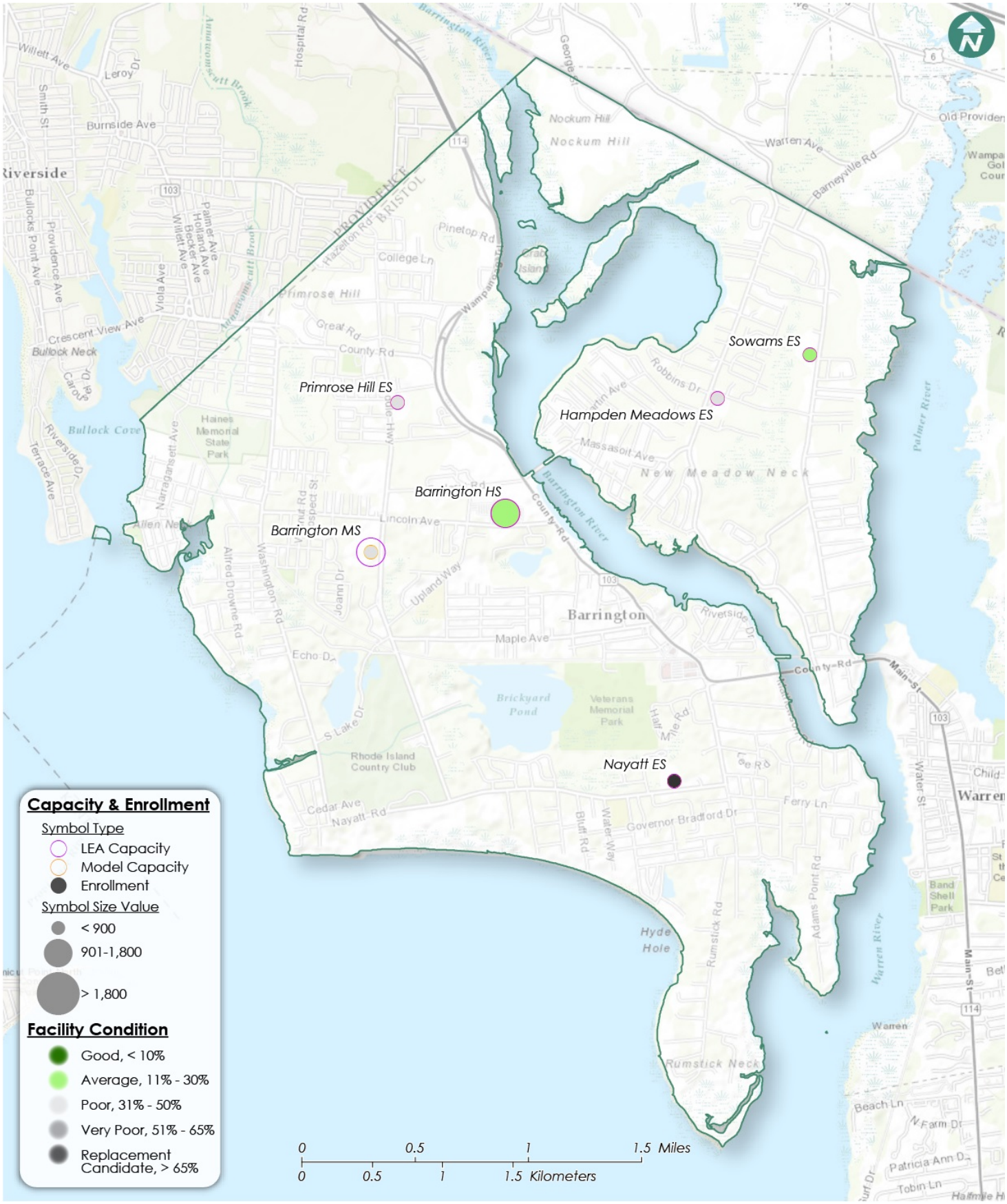
Barrington



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Portsmouth

LEA Summary

Portsmouth totals 480,050 square feet and consists of the school type(s) detailed below. School(s) were visited three times during the Statewide Facilities Assessment by teams of specialists from February-March 2016. This report provides LEA summary findings for the statewide assessment program.

School Type by Count



School Type	SqFt
Elementary School	95,000
Middle School	157,800
High School	227,250
Total:	**480,050**

Demographics

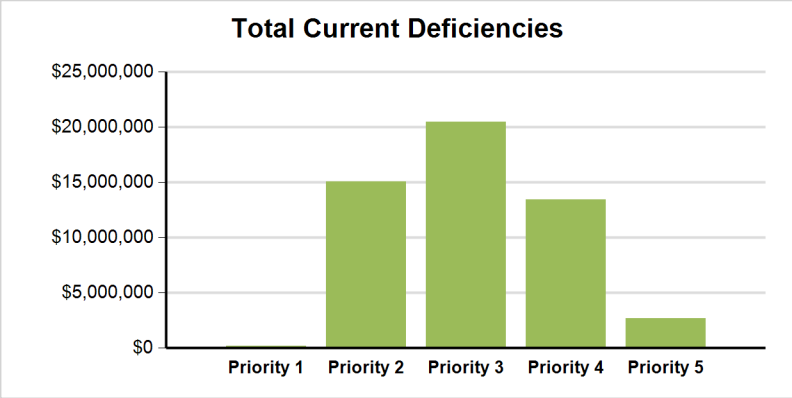
Enrollment is projected to decrease by 16.3% over the next 10 years in Portsmouth. The total LEA enrollment at 4 school(s) is 2,444 students with a total capacity of 3,163 as reported by the LEA. Utilization is calculated by dividing enrollment by capacity, resulting in 77.3% utilization at Portsmouth.

77.3 % Utilization



Educational Program Space Analysis

In Portsmouth there are 203 instructional spaces; of these spaces 21.7% meet or exceed the space size standards. Of the total current deficiencies identified, $3,507,000 are related to the educational program space assessment. Addressing these identified deficiencies will improve the learning environment and bring the school(s) in the district closer to 21st century learning facilities.



Five Year Need Summary

The current deficiencies total $51,869,114, with 39.5% categorized as Priority 3 and another 29.0% as Priority 2. The building systems with the highest current deficiency costs are Interior and Mechanical.

The projected life cycle need in Years 1 through 5 is $9,431,173. It is anticipated that the majority of the need will occur in Year 5. School(s) with the greatest need are represented in the adjacent table and make up 92.5% of the combined 5-Year need at Portsmouth.

School(s) with Greatest Need	Combined 5-Year Need
Portsmouth High School	$26,743,842
Portsmouth Middle School	$23,436,433
Melville Elementary School	$6,543,587

Five Year Facility Condition Index (FCI)

For master planning purposes, the total current deficiencies, less new construction, and the first 5 years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-Year FCI was calculated by dividing the 5-Year need by the total replacement cost. The 5-Year need is $61,300,287 with a district replacement value of $167,134,000. The resulting 5-Year FCI is 36.7%.

5-Year FCI Ranges



LEA Summary Data					
Gross SqFt	Avg Year Built	Current Deficiencies (Less New Construction)	Life Cycle Year 1-5 Total	Total 5-Year Need (Year 1-5 + Current Defs)	5-Year FCI
480,050	1962	$51,869,114	$9,431,173	$61,300,287	36.7%

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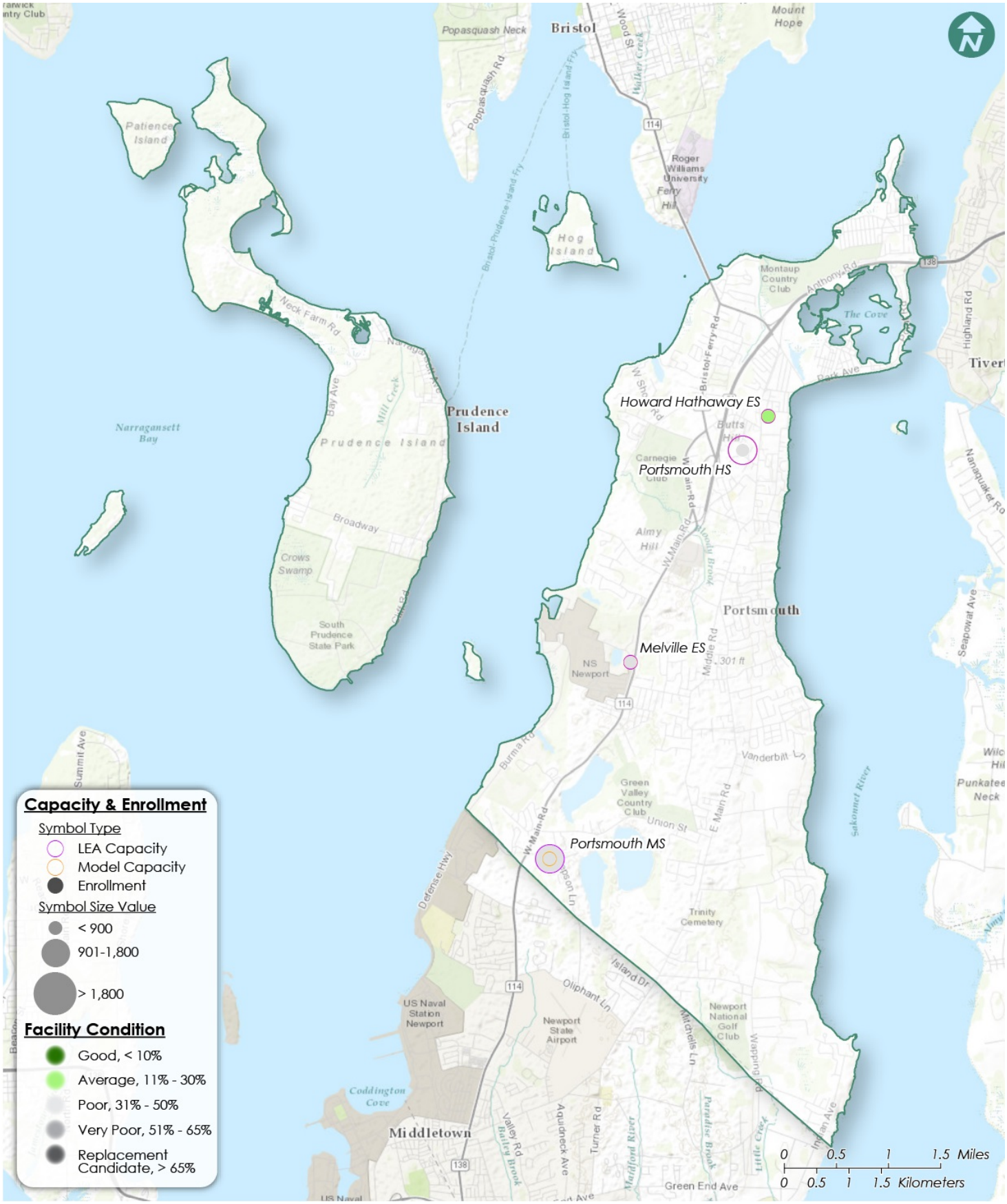
Portsmouth



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Tiverton

LEA Summary

Tiverton totals 405,097 square feet and consists of the school type(s) detailed below. School(s) were visited three times during the Statewide Facilities Assessment by teams of specialists in March 2016. This report provides LEA summary findings for the statewide assessment program.

School Type by Count



School Type	SqFt
Elementary School	117,861
Middle School	142,000
High School	145,236
Total:	**405,097**

Demographics

Enrollment is projected to decrease by 9.9% over the next 10 years in Tiverton. The total LEA enrollment at 5 school(s) is 1,820 students with a total capacity of 2,640 as reported by the LEA. Utilization is calculated by dividing enrollment by capacity, resulting in 68.9% utilization at Tiverton.

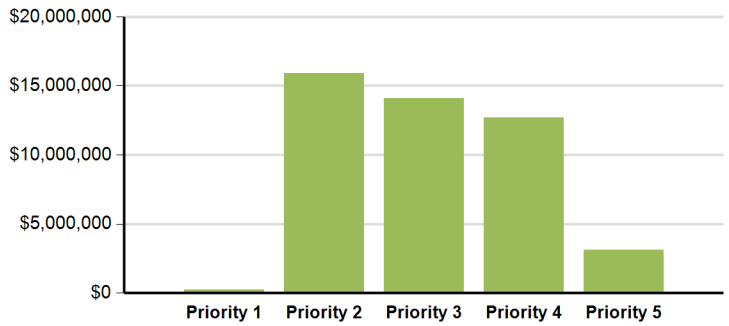
68.9 % Utilization



Educational Program Space Analysis

In Tiverton there are 178 instructional spaces; of these spaces 12.9% meet or exceed the space size standards. Of the total current deficiencies identified, $2,109,089 are related to the educational program space assessment. Addressing these identified deficiencies will improve the learning environment and bring the school(s) in the district closer to 21st century learning facilities.

Total Current Deficiencies



Five Year Need Summary

The current deficiencies total $46,032,107, with 34.5% categorized as Priority 2 and another 30.6% as Priority 3. The building systems with the highest current deficiency costs are Interior and Mechanical.

The projected life cycle need in Years 1 through 5 is $9,530,522. It is anticipated that the majority of the need will occur in Year 5. School(s) with the greatest need are represented in the adjacent table and make up 94.7% of the combined 5-Year need at Tiverton.

School(s) with Greatest Need	Combined 5-Year Need
Tiverton High School	$25,802,076
Tiverton Middle School	$25,190,668
Pocasset School	$1,638,076

Five Year Facility Condition Index (FCI)

For master planning purposes, the total current deficiencies, less new construction, and the first 5 years of projected life cycle needs were combined. This provides an understanding of the current needs of a facility as well as the projected needs in the near future. A 5-Year FCI was calculated by dividing the 5-Year need by the total replacement cost. The 5-Year need is $55,562,629 with a district replacement value of $140,396,310. The resulting 5-Year FCI is 39.6%.

5-Year FCI Ranges



LEA Summary Data					
Gross SqFt	Avg Year Built	Current Deficiencies (Less New Construction)	Life Cycle Year 1-5 Total	Total 5-Year Need (Year 1-5 + Current Defs)	5-Year FCI
405,097	1979	$46,032,107	$9,530,522	$55,562,629	39.6%

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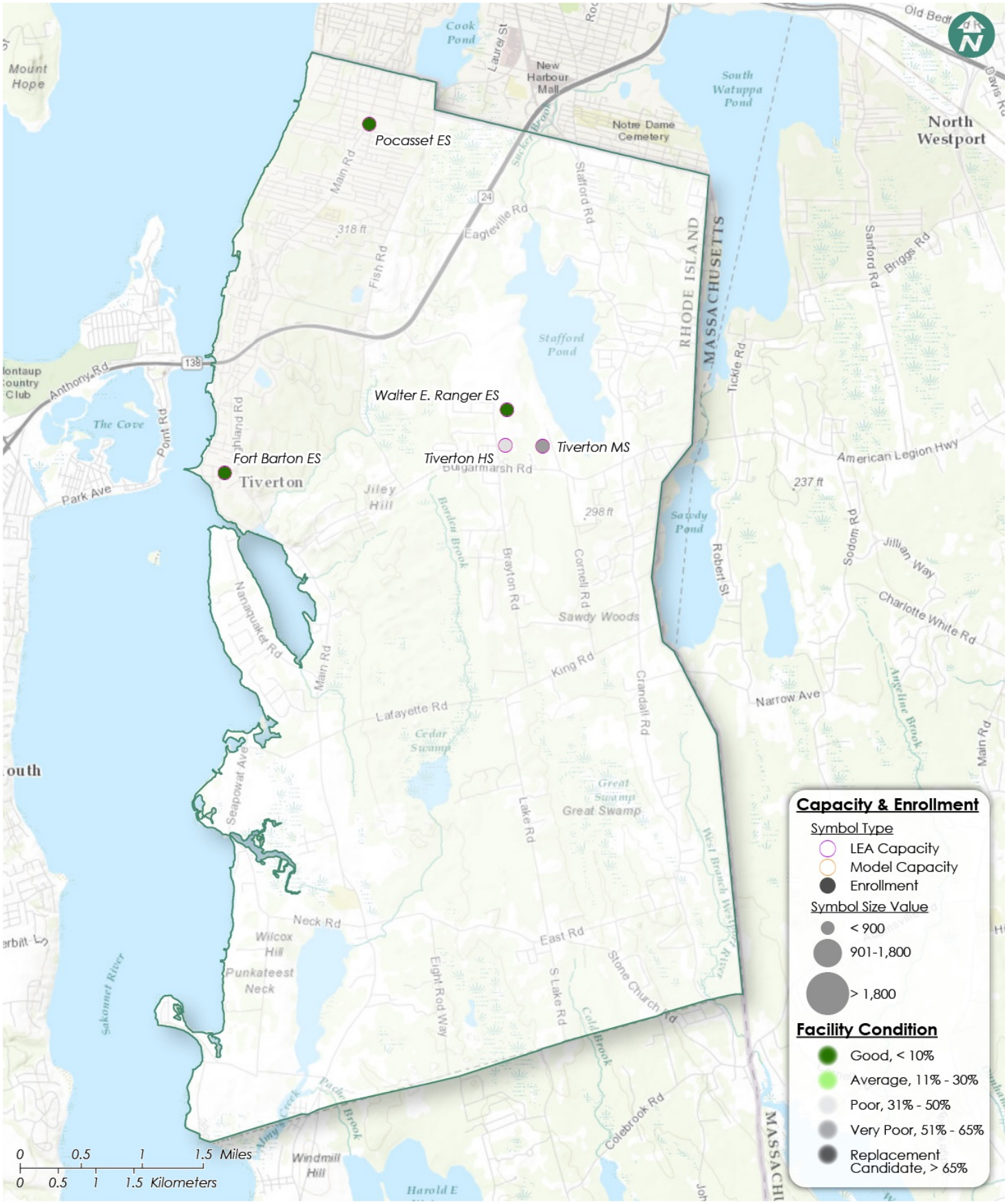
Tiverton



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EDUCATION DEMOGRAPHIC AND GEOGRAPHIC ESTIMATES

ACS-ED District Demographic Dashboard 2016–20

Bristol-Warren Regional School District, Rhode Island, RI

View State and National Statistics

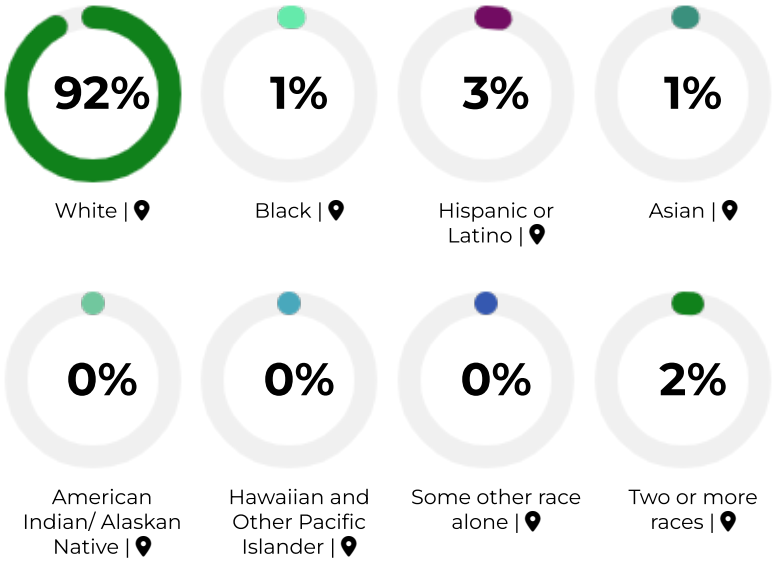
Community

Total Population
32,546

Median Household Income
$71,996

Total Households
13,114

Race/Ethnicity



Year Structure was Built

2000 and after	1970-1999	before 1970
7.1%	34%	59%

Households with Broadband Internet | 84.5%

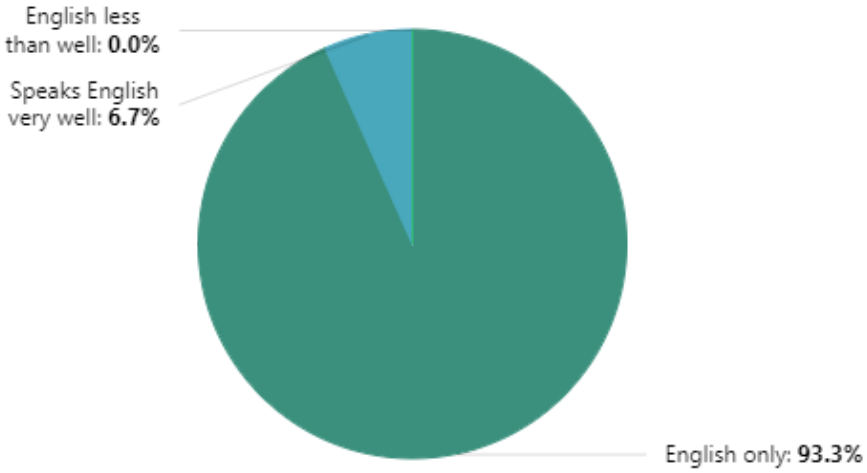
Housing Structure Type

House 59.3%

Apartments/Other 40.8%

Children in Public School

Language spoken at home (children 5 years and over)



Health

11.1% with a **Disability** |

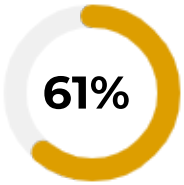
100% with **Health Insurance coverage** |

Poverty and Benefits (in the past 12 months)

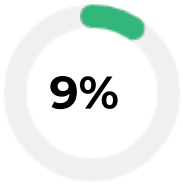
6.3% Families with income below the poverty level |

10.1% Families with Food Stamp/SNAP benefits |

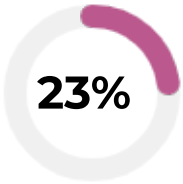
Families by Type



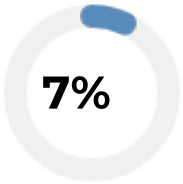
Married-Couple |



Cohabitating-Couple |



Female householder, no husband present |



Male householder, no wife present |

Parents (of children in public school)

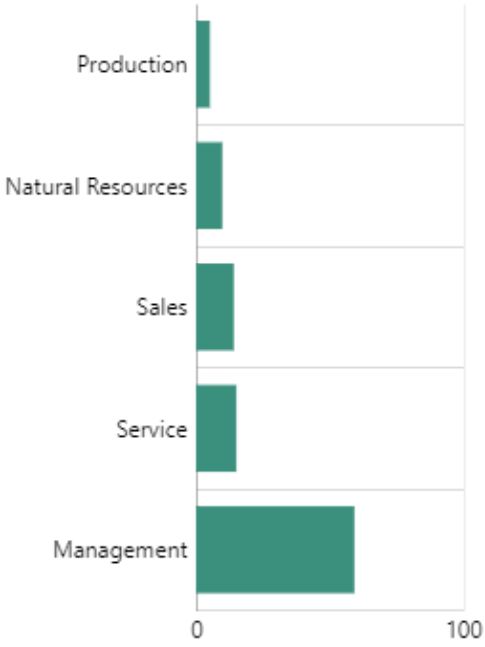
Median Income of Households |

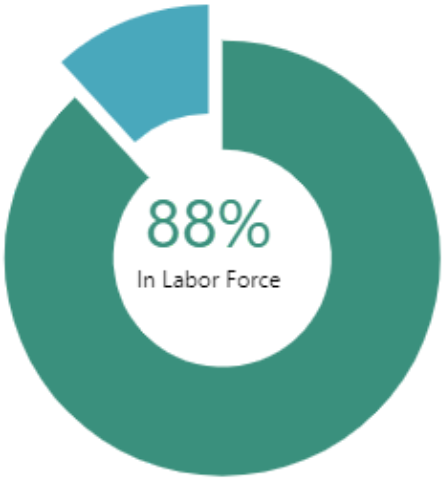
$99,643

Housing Status of Families

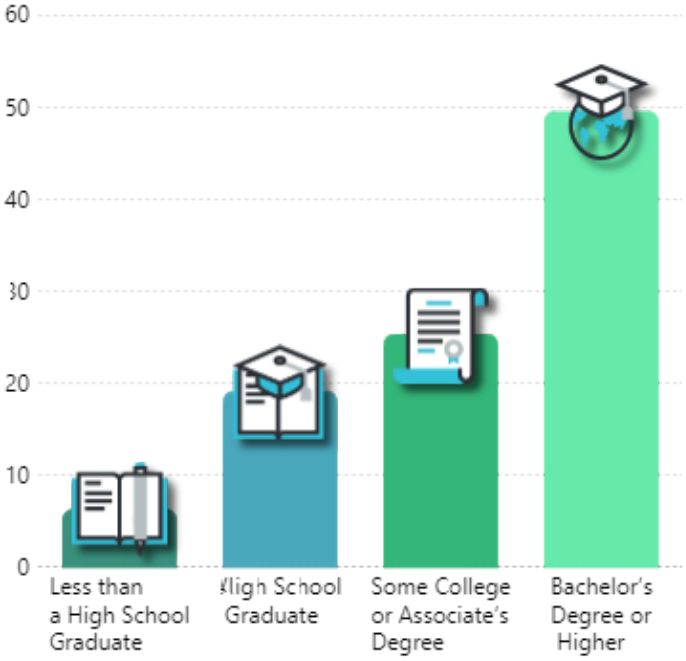
30.3% renter-occupied | **69.7%** owner-occupied |

Labor Force Status



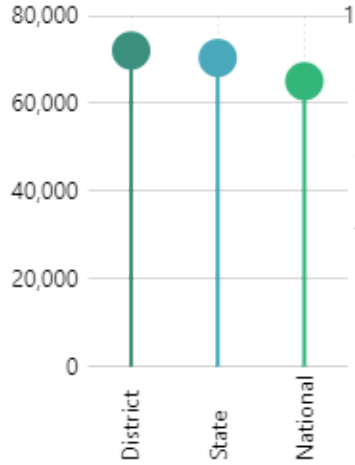


Educational Attainment

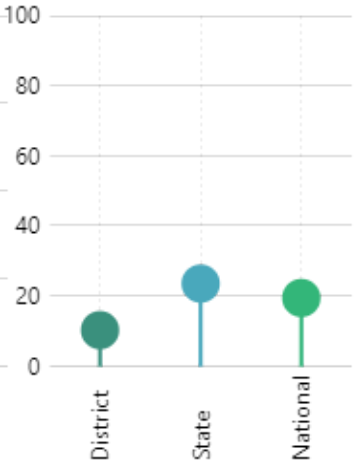


State and National

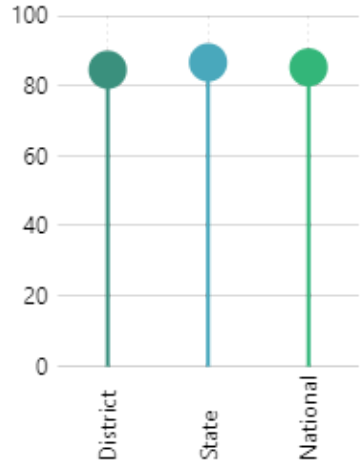
Median Household Income |



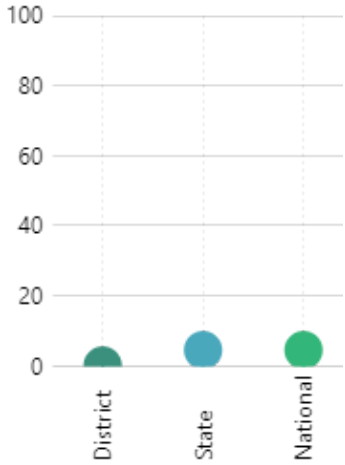
Families with Food Stamp/SNAP benefits |



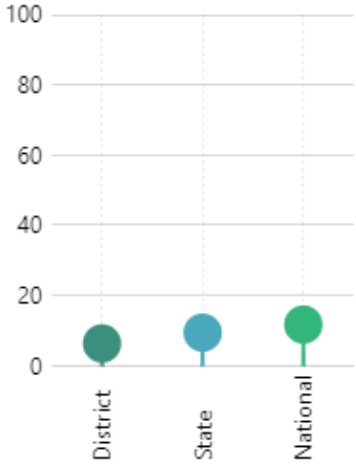
Households with Broadband Internet |



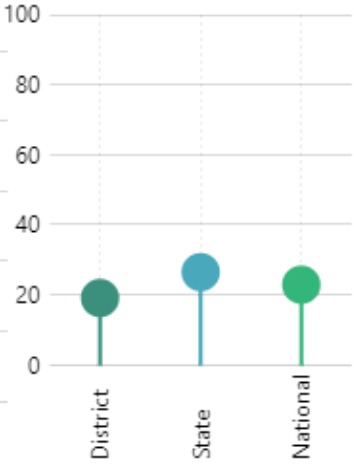
Speaks English Less Than Very Well |



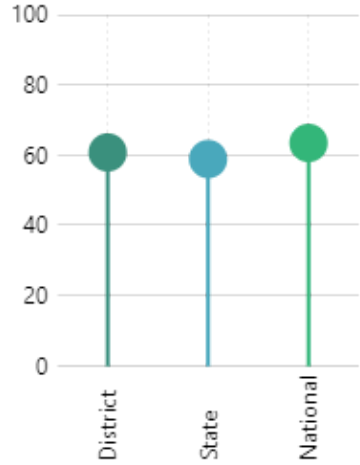
Less Than a High School Graduate



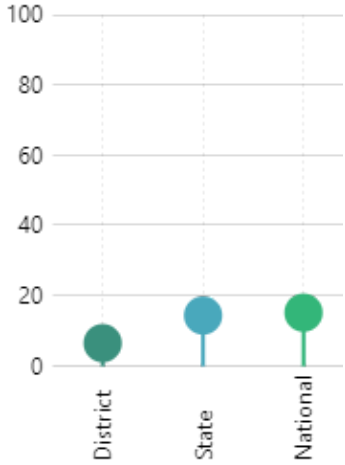
High School Graduate



Married Couple Household |



Families with Income Below the Poverty Level |



For additional social and economic characteristics, visit the ACS-ED table collection or explore the ACS-ED interactive map.

Children enrolled in public school are defined as the population ages 3-17 and those ages 18 & 19 who have not graduated from high school and report attending public school in the past 3 months. Subject definitions are available in the U.S. Census Bureau's American Community Survey program documentation.

11: EDUCATIONAL PROGRAM DUE DILLIGENCE

INCLUSIONS:

- Educational Program Specifications
- Existing School Capacities and Grade Configurations

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Educational Program Specifications Statement

Dear Mr. Carreño:

Enclosed within this section are the Educational Program Due Diligence Specifications.

As part of this RIDE Stage I, Colliers Project Leaders has partnered with Civic Design to create educational program due diligence specifications for the Bristol Warren Regional School District. Additionally, the district intends to procure the services of an Educational Planner to continue the educational programming requirements needed to develop and submit the RIDE Stage II Application. The RFQ for the RIDE Stage I portion of educational services are included in Section 16 for reference.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

2023

Educational Program Due Diligence

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

CIVIC

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3.6 High School Curriculum

01 - Overview and Planning Highlights

01 Introduction and Overview

The Bristol Warren Regional School District hired CIVIC to assist in the educational facility master planning process, and lead the visioning. This work was centered on the School Building Committee, but included faculty and staff. The visioning work began in August 2021 and continues to the present. This progress report is intended to provide an update on work conducted, including a summary of the points of engagement and the prioritized concepts the district is considering.



Figure 1 - District Map - Bristol Warren LEA Summary

02 District Overview and Grade Configuration

The Bristol Warren Regional School District is located in Bristol, Rhode Island and has a population of approximately 33,471 in the 2020 census. The October 2022-23 enrollment reported to RIDE for the six schools was 2,837 students. The district has six schools: Colt Andrews Elementary (PK-5), Guiteras Elementary (PK-5), Hugh Cole Elementary (PK-5), Rockwell Elementary (K-5), Kickemuit Middle School (6-8), and Mt. Hope High School (9-12).

The district functional capacity is 3,788 with 1,554 seats at the Elementary level, 1086 at the Middle School, and 1148 at the High School. Functional capacity is the measure for the approximate amount of students that can be adequately educated within a building. This measure is tied to the state's housing aid utilization bonus, which incentivizes 'right sizing' facilities to ensure adequate facilities that optimize operational efficiencies. As evident in figure 2, the utilization at the middle school is below 60%, which may qualify work at the school for this bonus.

School Name	LEA Capacity	Functional Capacity	22-23 Enrollment	22-23 Functional Utilization	27-28 Enrollment	27-28 Functional Utilization
Colt Andrews School	432	374	300	80.2%	1255	80.8%
Guiteras School	288	243	234	96.3%		
Hugh Cole School	780	680	510	75.0%		
Rockwell School	312	257	264	102.7%		
Kickemuit Middle School	879	1086	650	59.9%	560	51.6%
Mt. Hope High School	1407	1148	879	76.6%	778	67.8%

Figure 2 - Grade Configuration and Utilization

03 Centering Education in Planning

The mission of the Bristol Warren Regional Public School District is to engage families and community partners in creating vibrant and adaptive learning environments that supports all student in realizing their full potential as productive and successful members of our society.

As part of the strategic planning effort, the Bristol Warren community identified 5 key priorities with many areas of strength to build upon, including:

Culture & Climate - Dedicated, therapeutic staff and support staff, connections to community resources, Secondary Social Emotional Learning initiatives, Supportive Administrators

Teaching & Learning - Dedicated Teaching Staff and Support Staff, many examples of effective models of pedagogy, High School assessment development and validation cycle, integration of Big 3, Pride in schools and our students, access and use of technology

Professional Development - Overarching Professional Development personnel, Meaningful longitudinal plans, committed employees who want to learn, possess the technology to meet the Professional Development needs of all employees

Career & Technical Education (CTE) - 2 RIDE Accredited CTE Programs: Business/Finance, Engineering (PLTW), CTE Advisory Board, Student interest in future CTE programs, skilled and motivated teachers, Naviance-ILP process, Foundational program at KMS

Communication - Strong culture within each school with staff, students and community, majority of staff enjoy working with fellow employees, feel a sense of pride for their building and work, multiple systems with which to communicate

The district also identified a theory of action that would enable each and every student to succeed in college, career, and life, including:

- Create and promote a culture and climate in all schools that is safe, inclusive, vibrant and an adaptive learning environment supportive of all students
- Support High Quality Teaching and Learning at each level (PK-12) including High Quality core curriculum and robust Multi-tiered Systems of Support within each school
- Develop & Provide Professional Learning opportunities for all staff to support continuous learning to provide students with rigorous academics
- Expand our Career & Technical Education program for students
- Commit to frequent and purposeful communication to staff, families, and the larger community

The Mission, Theory of Action, Theory of Action, and Measurable Goals all provide critical baseline for planning. The work of Educated Facility Planning must be anchored in a strong understanding of a school and district's mission and vision. In order to do so, the planning included an overview of the district's Vision and the School Improvement Plan 2022-2023.

School Walkthrough Observations

In 2022 CIVIC conducted facility walkthroughs at each of the District's six schools. The goal of these walk-throughs was to get an understanding of how each school facility supported or hindered the delivery of the districts educational program.

The following summary captures the initial observations identified across the schools.

Elementary Schools

- Existing buildings limit range of possibility for desired learning environments
- Breakout and collaborative spaces currently limited in most facilities
- Not all schools have the same educational spaces
  - Art and Music are sometimes in a shared space
  - Limited intervention and breakout spaces
  - Some schools have Gymetorium
- Colt Andrews - Two building configuration forces long transitions, dangerous street crossing, and security issues.
- Pre-K currently unable to receive Bright Stars due to facilities
- Limited capacity in existing facilities to accommodate growth

Middle School

- Kickemuit MS is in good condition
  - Capital improvements necessary to address high priority repairs and improve learning environments
- May be eligible for under-utilization bonus
  - There may be opportunities to optimize utilization and align facility with educational program

High School

- Existing Career Tech spaces are outdated, limit the available offerings
- Breakout and collaborative spaces limited
- Locker rooms are outdated, accessibility issue
- High School is in flood plain - flooding occurs several times a year
- HS building is large - can feel disorienting
  - Courtyard has too many remote areas
  - Too many doors to the exterior

Bristol Warren Regional School District Facility Data

Facility Conditions area critical element in the planning for any capital improvements. Figure 3 includes facility condition data drawn from the 2017 statewide assessment. Although this provides a useful benchmark, the district recognizes the importance of up to date information and has contracted with Colliers to provide an updated assessment. This assessment is part of the Stage I submission and will inform the planning moving forward.

School Name	5-Year FCI	Year Built	Square Feet	Accessibility
Colt Andrews School	14.51%	1906	71,300	Poor
Guiteras School	44.51%	1929	38,600	Poor
Hugh Cole School	24.53%	1968	84,536	Adequate
Rockwell School	39.56%	1951	29,200	Fair
Kickemuit Middle School	32.73%	1958	149,915	Fair
Mt. Hope High School	34.86%	1965	177,732	Poor

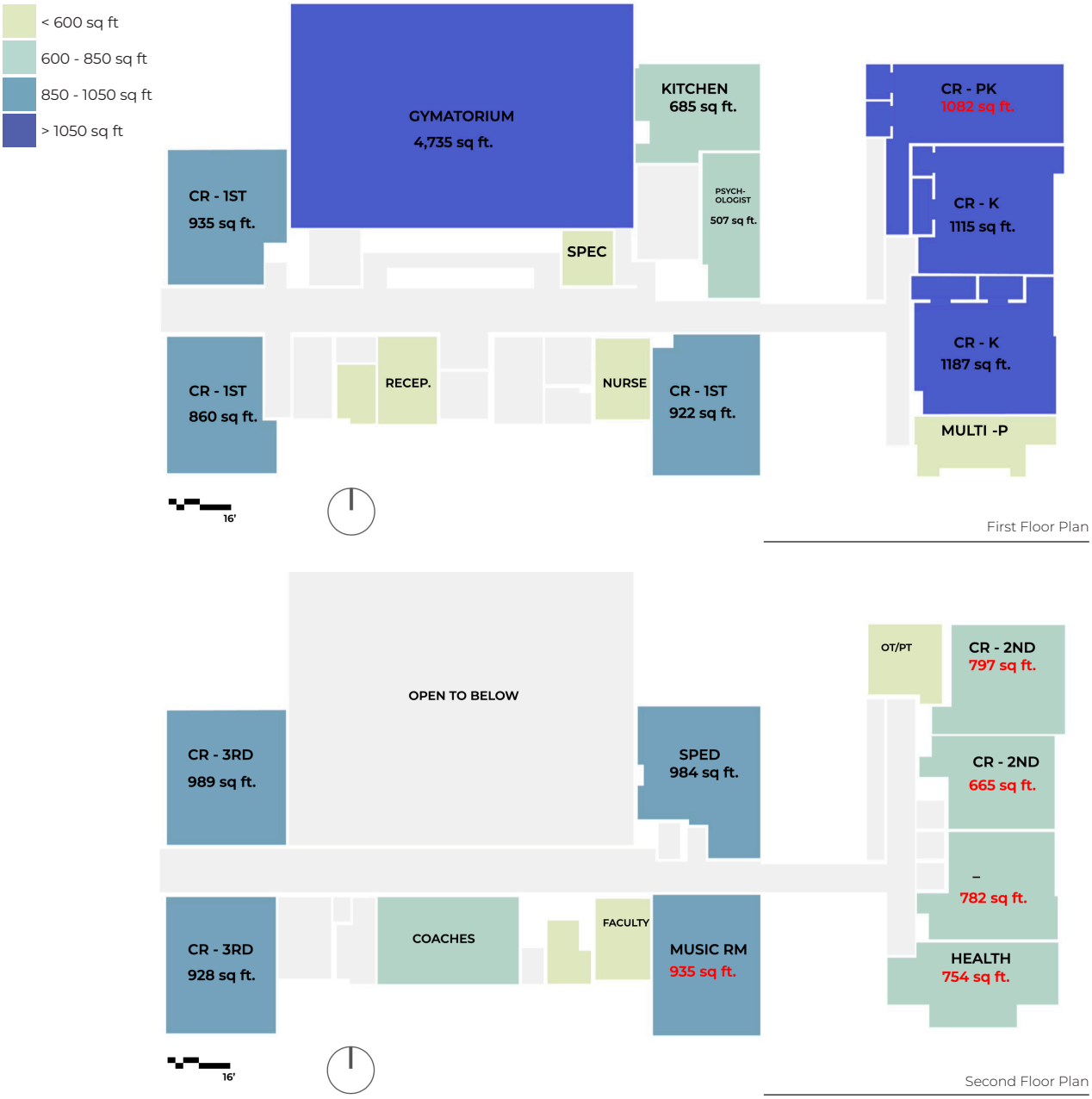
Figure 3 - BWRSD Facility Data

04 School Building - Classroom Size

In tandem with the school walkthroughs and program evaluation, CIVIC conducted a desktop analysis of existing spaces. The following graphics provide an approximate square footage diagram for the spaces and classrooms of each school.

In addition to identify size, the diagrams highlight spaces that are sized more than 100 square feet below the space standard established by the school construction regulations.

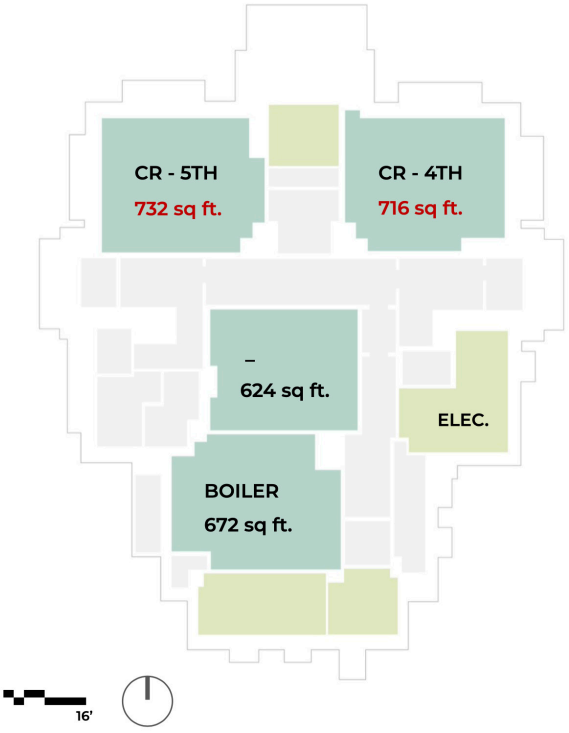
Andrews Elementary School



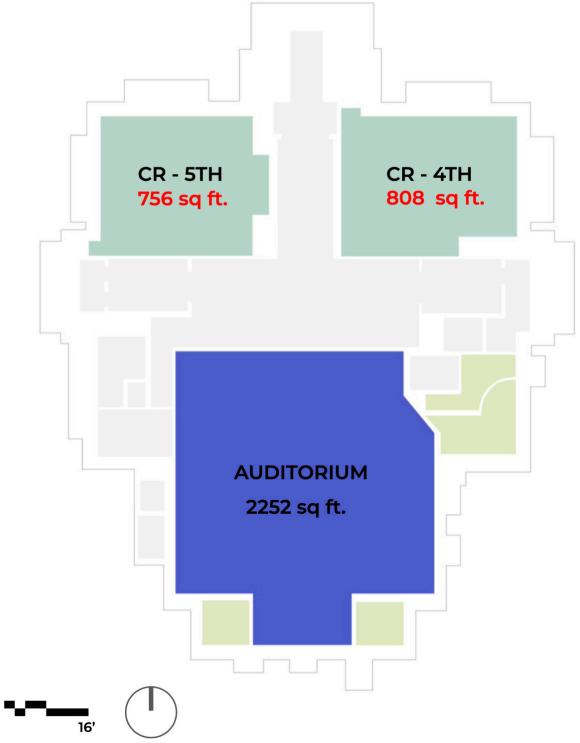
Andrews Elementary School was built in 1862, an addition was built in 2008. It is across the street from the Colt School and the two schools share facilitates. Andrews School houses grades K-3 with the Gym and Cafeteria as a shared spaces between the two schools. Most of the spaces and classrooms meet the square foot requirements except for the Music Room, 2nd Grade classrooms and Pre-K classroom.

Colt Elementary School

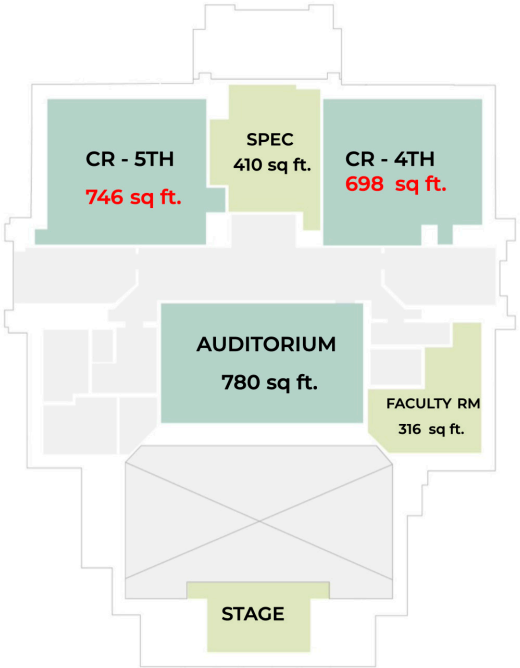
< 600 sq ft
600 - 850 sq ft
850 - 1050 sq ft
> 1050 sq ft



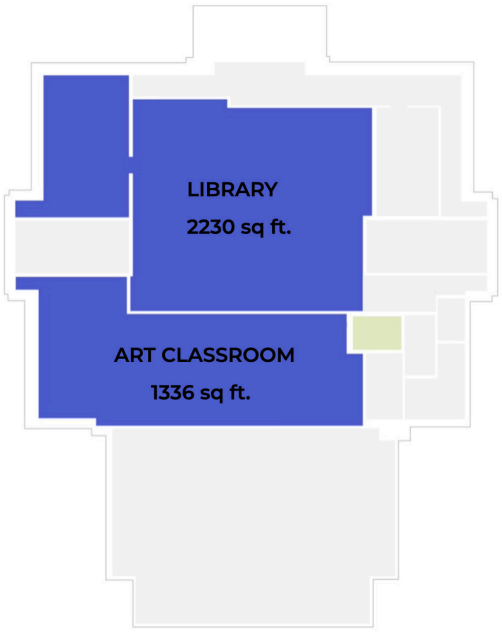
Lower Level Floor Plan



First Floor Plan



Second Floor Plan

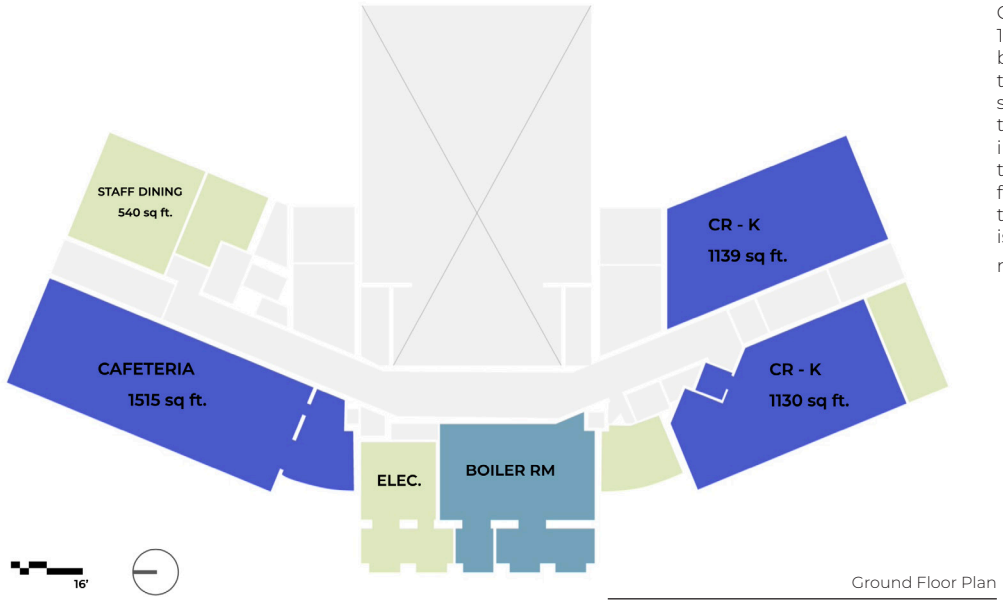


Third Floor Plan

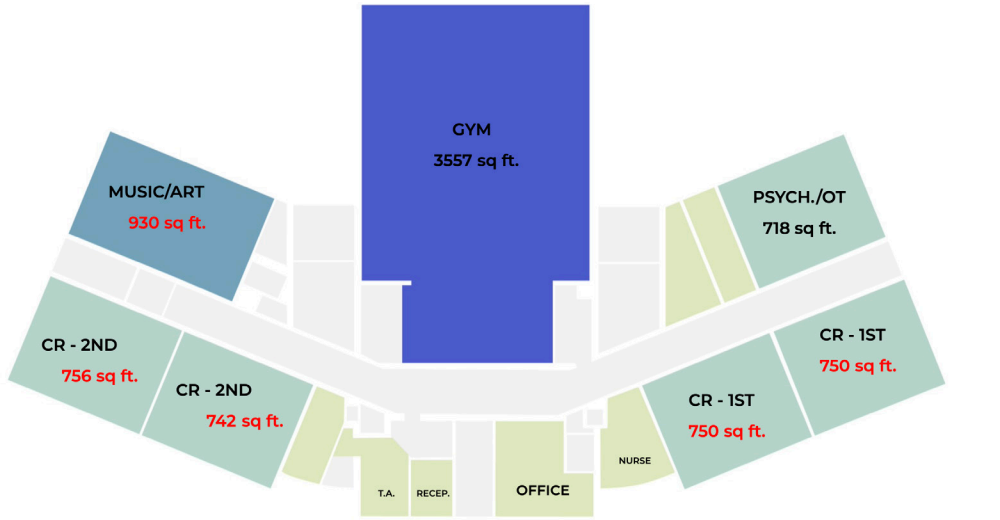
Colt Elementary School was built in 1862 and renovated in 2008. It is across the street from the Andrews School and the two schools share facilitates. Colt School houses grades 4-5 with the Auditorium and Media Center as a shared spaces between the two schools. All of the classrooms in the building are below the 950 square footage requirement.

Guiteras Elementary School

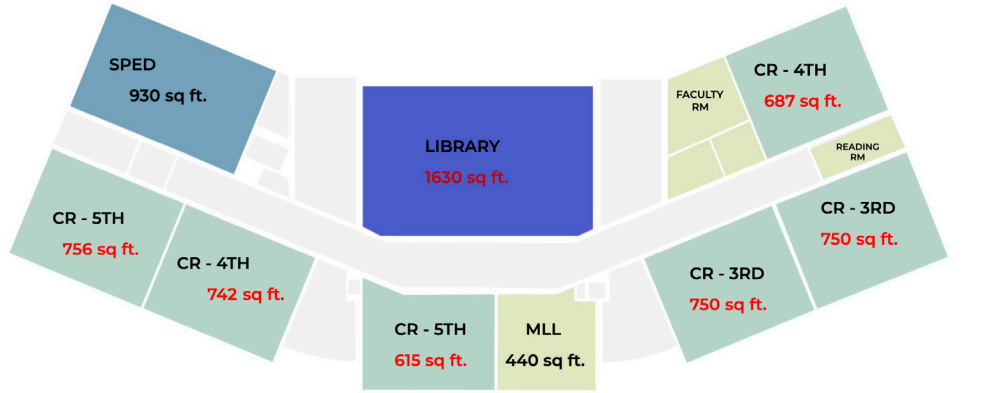
Guiteras Elementary School was built in 1925. The school is located close to the bay and near a pond that is connected to the bay by Silver Creek. This has led to some water issues in the lower level of the building. The school has 234 students in K-5. All of the classrooms are below the square footage requirements except for the Kindergarten classrooms and the SPED room. The Music classroom is 420 square feet below the 1350 sq ft requirement.



Ground Floor Plan



Lower Floor Plan

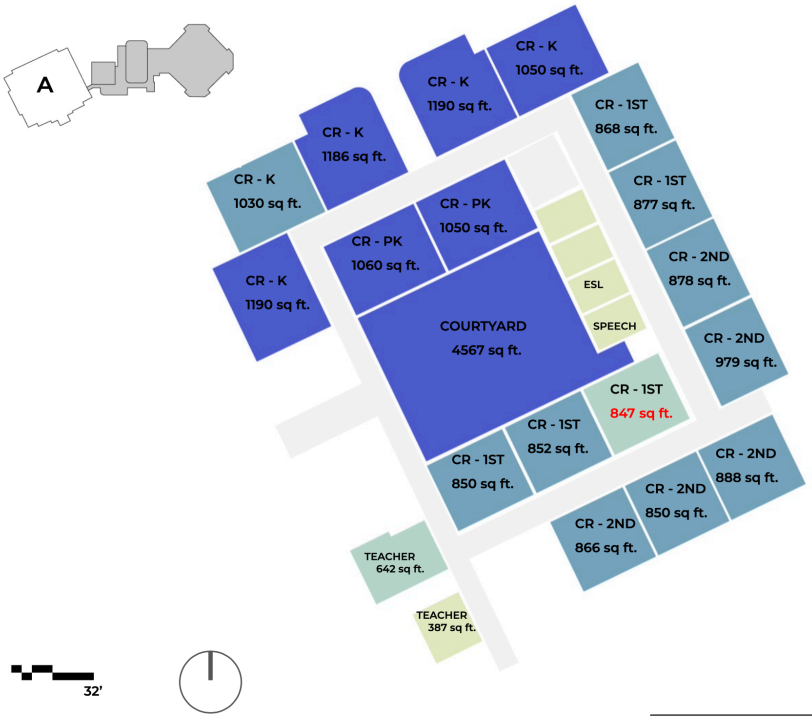


Upper Floor Plan

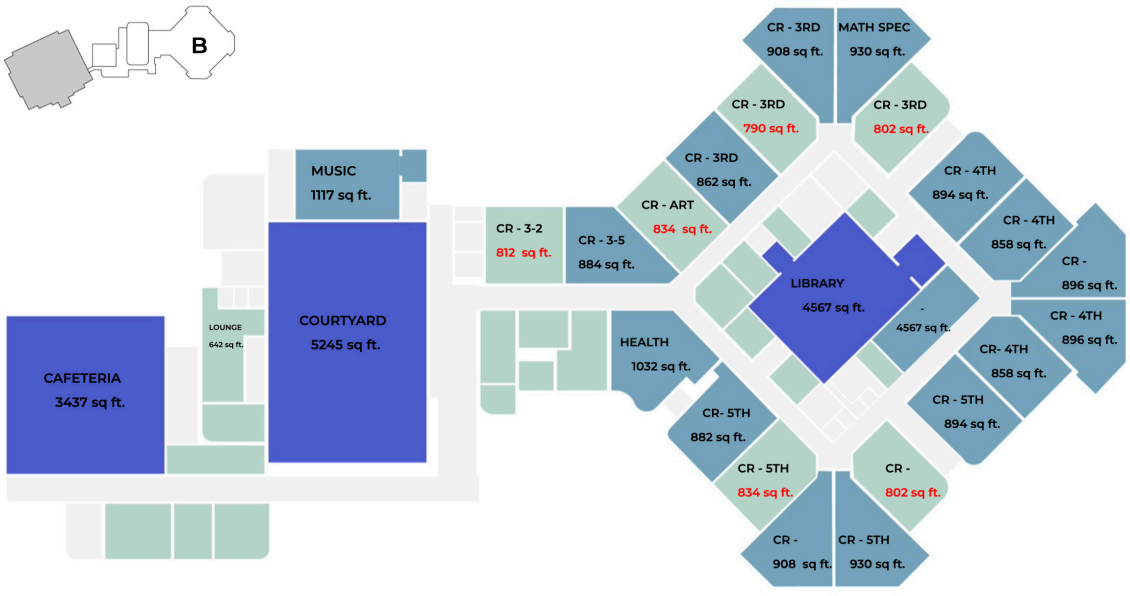
- < 600 sq ft
- 600 - 850 sq ft
- 850 - 1050 sq ft
- > 1050 sq ft

Hugh Cole Elementary School

< 600 sq ft
600 - 850 sq ft
850 - 1050 sq ft
> 1050 sq ft



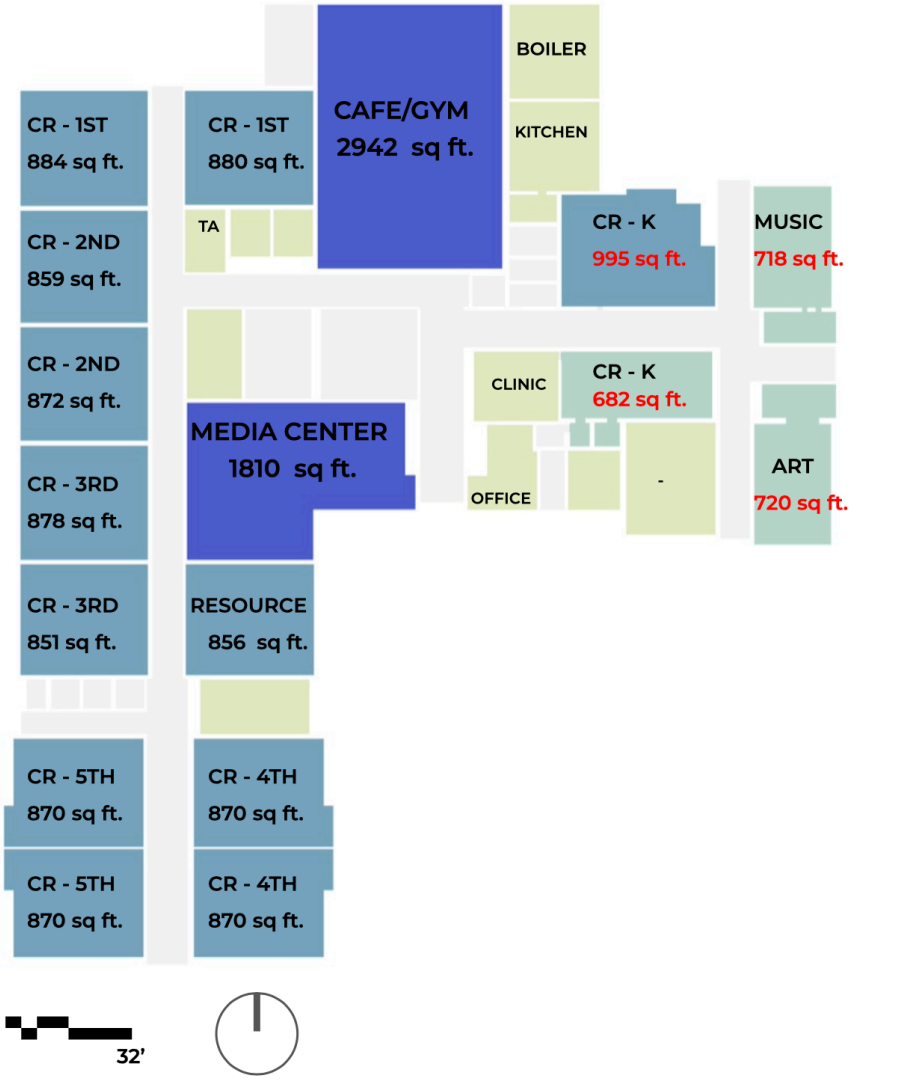
Ground Floor Plan - Section A



Ground Floor Plan - Section B

Hugh Cole Elementary School was built in 1968 and an addition was built around 1990 when the district regionalized. The school has 510 students in grade K-5. There are approximately 36 classrooms in the building, 7 of them are under the square footage guidelines.

Rockwell Elementary School



First Floor Plan

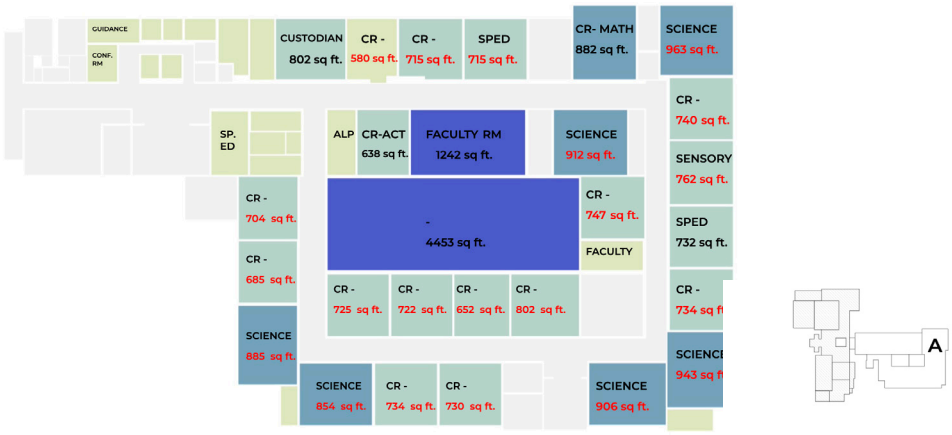
Rockwell Elementary School was built in 1951. A classroom addition was built around 1990 when the district regionalized. The School has 264 students in grades K-5. The Music (718sq ft) and Art (720 sq ft) classrooms are far below the required 1350 sq ft and 1150 sq ft. The Pre-K classroom is taught in the smallest classroom and is approximately 520 sq ft below the square footage requirement.

Kickemuit Middle School

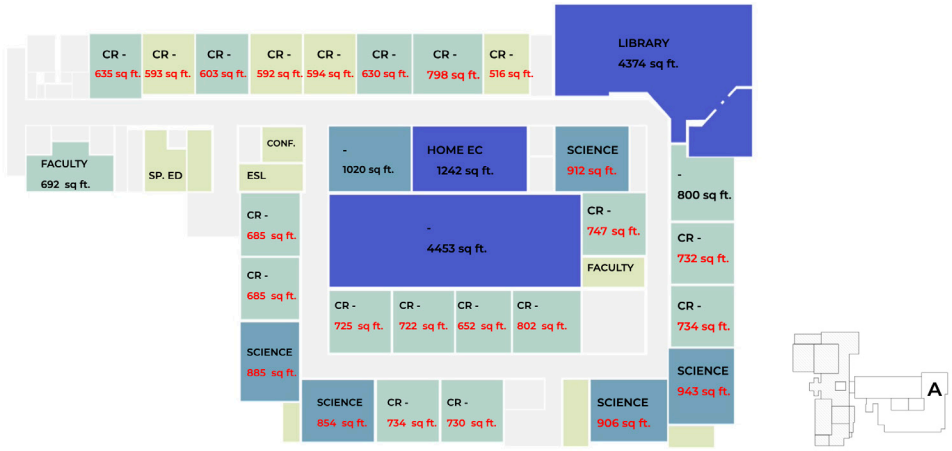
Kickemuit Middle School was built in 1959 and an addition was built in 1989. The School has 650 students. A majority of the class-rooms in Section A of the building are below the square footage guidelines.



Ground Floor Plan - Section B



Ground Floor Plan - Section A



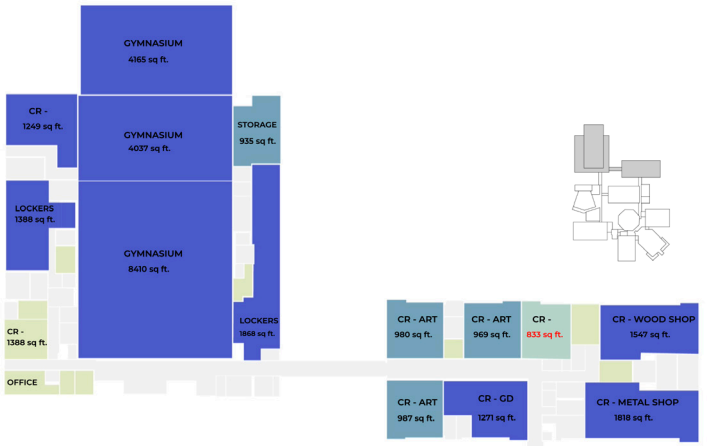
Second Floor Plan - Section A

- < 600 sq ft
- 600 - 850 sq ft
- 850 - 1050 sq ft
- > 1050 sq ft

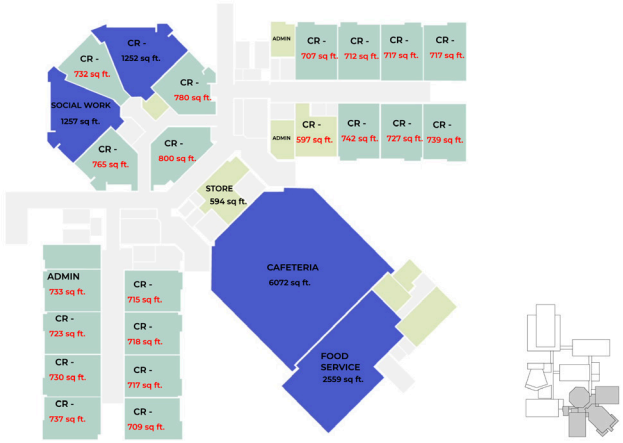
Mount Hope High School



First Floor Plan - Section D,E,J+K



First Floor Plan - Section A + C



First Floor Plan - Section B,F,G+H



Second Floor Plan

- < 600 sq ft
- 600 - 850 sq ft
- 850 - 1050 sq ft
- > 1050 sq ft

Mount Hope High School was built in 1959 and an addition was built in 1989. The school has 879 students in grades 9-12. The building is comprised of sections from different additions connected by corridors. The classrooms located on the wings are all below the required square footage.

Overall Challenges & Opportunities

Curriculum & Strategic Planning Alignment

- Create educational spaces that are aligned with the district's curriculum and pedagogy
- Prepare for PK growth
- Create state of the art Career Tech programs
- Provide 21st century learning spaces, including collaborations spaces maker spaces, and breakout rooms
- Create Future Ready Schools
- Consider action on schools from floodplain
- Improve safety and security
- Optimize utilization of schools
- Study enrollment projections / investigate grade configuration

02 - Teacher/Staff Survey

01 Facility Impressions

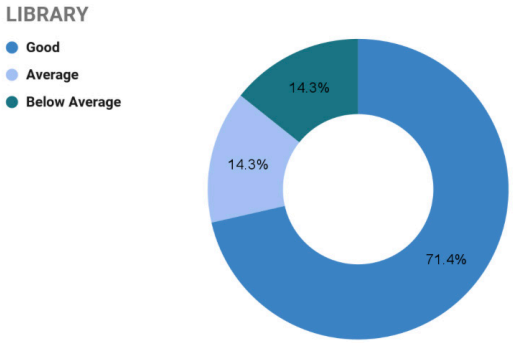
In recognition of the importance of teacher participation in the facility planning effort, a survey was distributed to engage the Bristol Warren Regional School District teachers and staff. The survey asked participants to share their thoughts about their current school, identify areas of strength and deficiency, and suggest opportunities for improvement in the future.

The following graphics provide an overview of the responses gathered from each school.

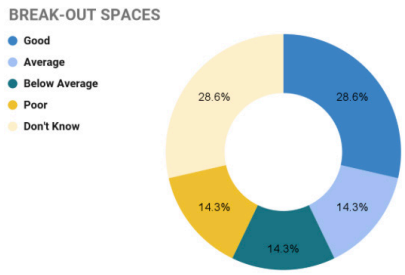
In order to get an overall understanding of the facility impressions, the teachers and staff were asked to rate the appearance and functionality of various spaces within their school building. The two categories asked for feedback on the conditions, ranging from Great, Good, Average, Below Average, Poor and Don't Know. The Library was determined to be average or below average in attractiveness for a majority of the schools. In terms of functionality, the breakout spaces were consistently identified as Poor or 'Don't Know', however the cafeteria had mixed impressions for each school.

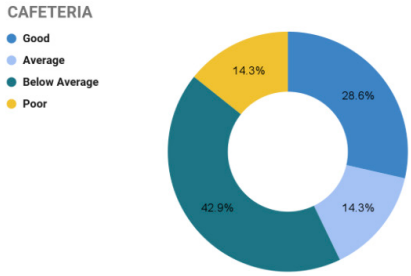
Colt Andrews Elementary School

Please rate your impression of the appearance and attractiveness of the following areas of Colt Andrews :



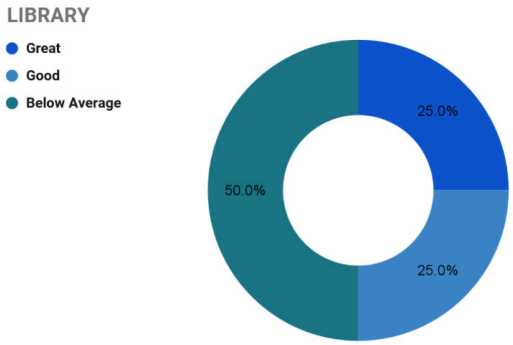
Please rate your impression of the functionality of the following areas of Colt Andrews. Functionality includes stability, comfort, and usability.



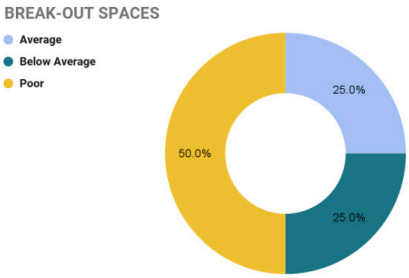


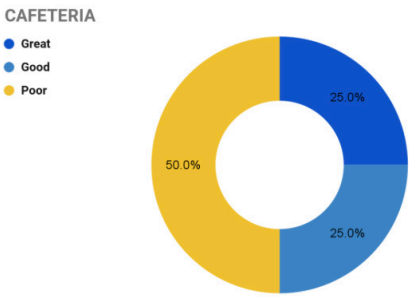
Guiteras Elementary School

Please rate your impression of the appearance and attractiveness of the following areas of Colt Andrews :



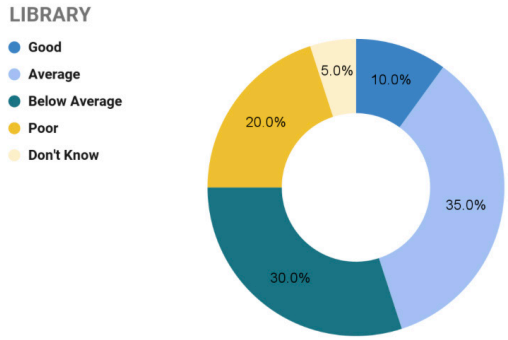
Please rate your impression of the functionality of the following areas of Colt Andrews. Functionality includes stability, comfort, and usability.



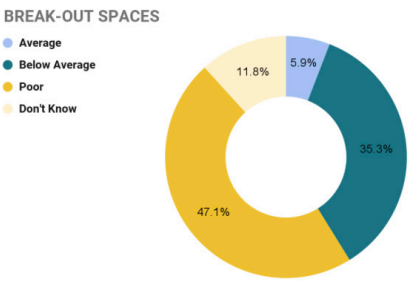


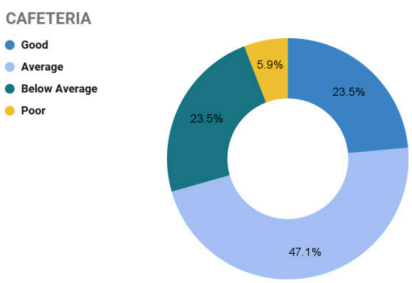
Hugh Cole Elementary School

Please rate your impression of the appearance and attractiveness of the following areas of Colt Andrews :



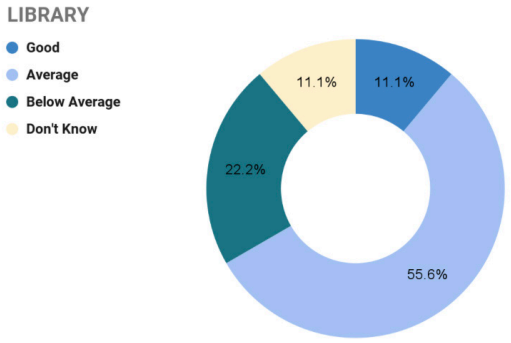
Please rate your impression of the functionality of the following areas of Colt Andrews. Functionality includes stability, comfort, and usability.



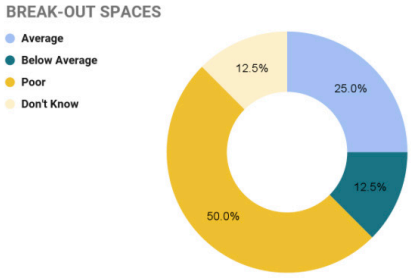


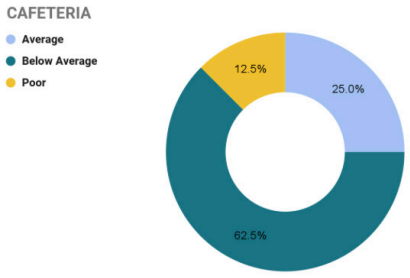
Rockwell Elementary School

Please rate your impression of the appearance and attractiveness of the following areas of Colt Andrews :



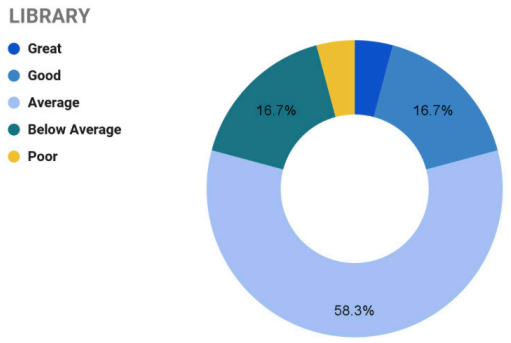
Please rate your impression of the functionality of the following areas of Colt Andrews. Functionality includes stability, comfort, and usability.



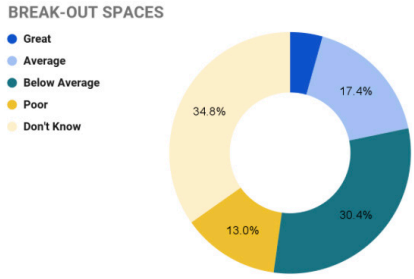


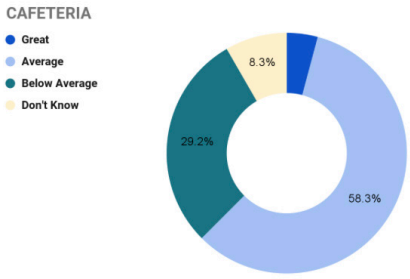
Kickemuit Middle School

Please rate your impression of the appearance and attractiveness of the following areas of Colt Andrews :



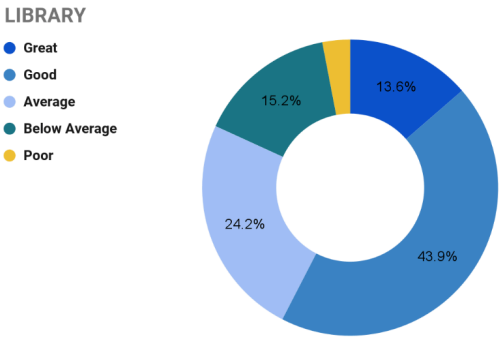
Please rate your impression of the functionality of the following areas of Colt Andrews. Functionality includes stability, comfort, and usability.



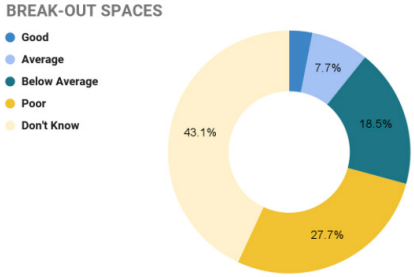


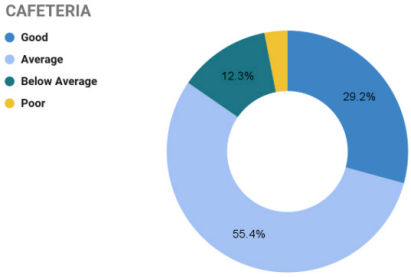
Mount Hope High School

Please rate your impression of the appearance and attractiveness of the following areas of Colt Andrews :



Please rate your impression of the functionality of the following areas of Colt Andrews. Functionality includes stability, comfort, and usability.





02 Favorite and Improved Spaces

In addition, the survey asked the teachers and staff open ended questions on their favorite spaces and the aspects of the building and site that they would like to improve. Across all schools, it was evident that the classroom was a favorite space for the teachers, as it provided a space that they could call their 'own', regardless of the condition.

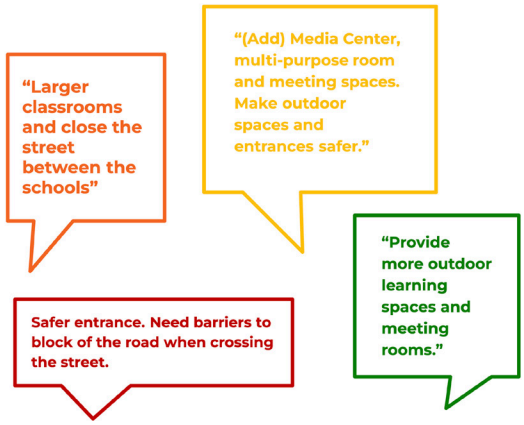
Each school had an identified characteristic that made it unique, such as the architecture of the buildings, the view to the harbor, the 'Side Yard' at the middle school, etc. Many of the teachers expressed a need for renovations on the current spaces as well as the addition of outdoor learning spaces, updates on specialized learning spaces, and spaces that align with the current best practices in teaching, such as breakout and collaborative spaces.

Colt Andrews Elementary School

What are your favorite spaces?

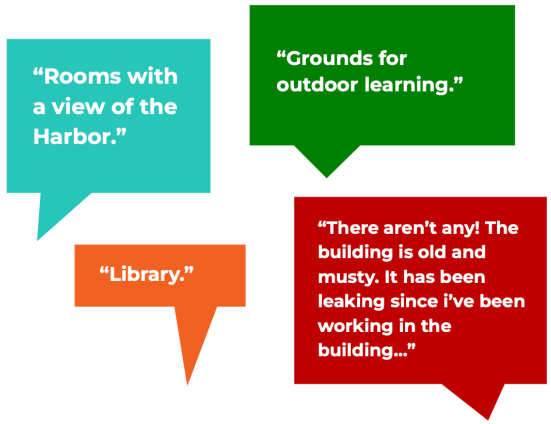


What would you like to improve at the building and site?

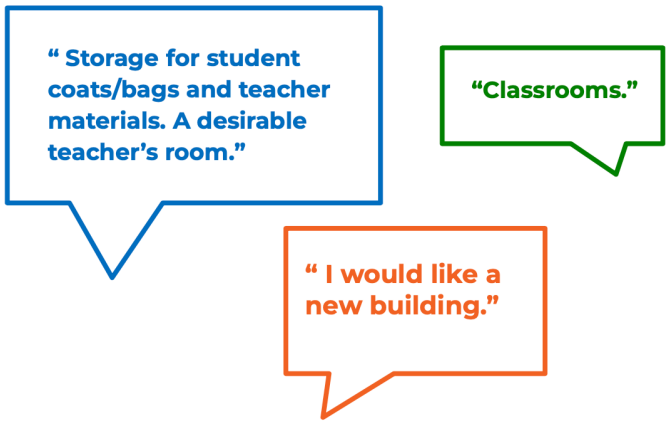


Guiteras Elementary School

What are your favorite spaces?



What would you like to improve at the building and site?



Hugh Cole Elementary School

What are your favorite spaces?



What would you like to improve at the building and site?

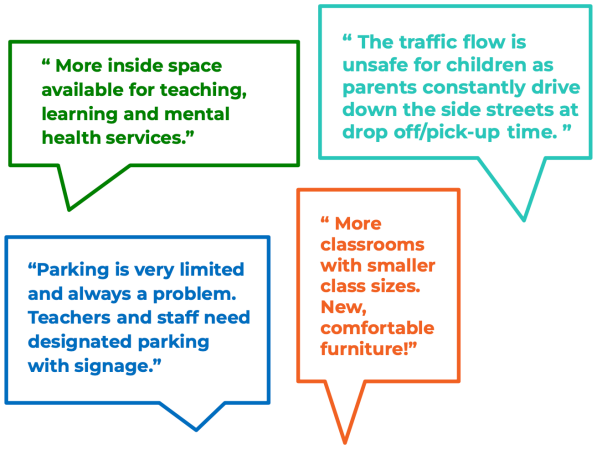


Rockwell Elementary School

What are your favorite spaces?

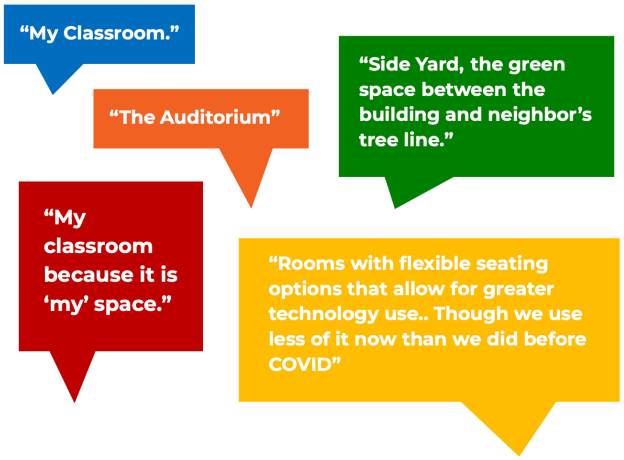


What would you like to improve at the building and site?

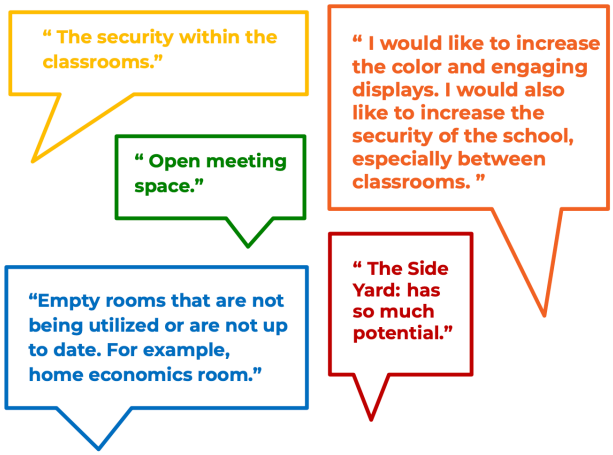


Kickemuit Middle School

What are your favorite spaces?



What would you like to improve at the building and site?



Mount Hope High School

What are your favorite spaces?



What would you like to improve at the building and site?



03 Educational Themes + Quotes

Towards the end of the survey, teachers and staff were guided to open ended questions that identified the overall educational priorities that should be integrated into planning and the aspects that they would like the planning and leadership team to know throughout the planning process. After distilling the responses, there were a few major themes that were identified the quotes included here express the emerging themes.

Overall Educational Themes

- Functioning technology
- Outdoor learning spaces
- Teacher planning space and lounge
- Severe Special Ed needs
- School Safety
- Functional dynamic learning spaces
- More built-in flexible learning areas
- New designs for classroom layouts
- Comfortable and functional furniture
- Therapeutic spaces
- Evacuation spaces
- Space for educational support teachers
- Collaborative spaces outside of the classroom

Are there other educational priorities that should be integrated into planning?



Overall Planning Themes

- Equity is important!
- Involve teachers in decisions making
- Spaces for programs - behavior disorder, alternative learning, etc
- Community partnership space
- More inclusive and creative spaces
- Student security and safety
- Insufficient staff parking

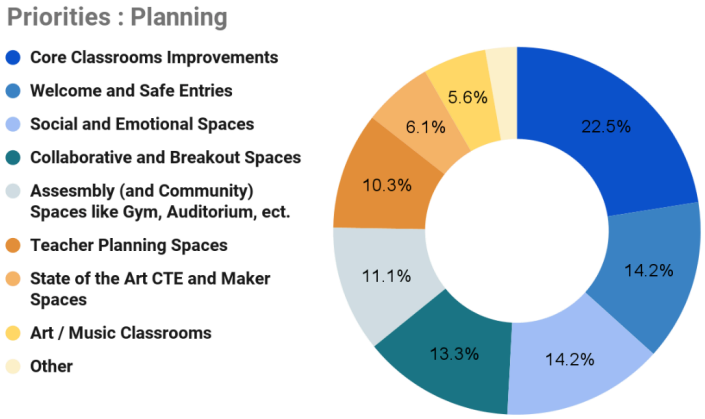
What else would you like the planning and leadership team to know as we continue the planning process?



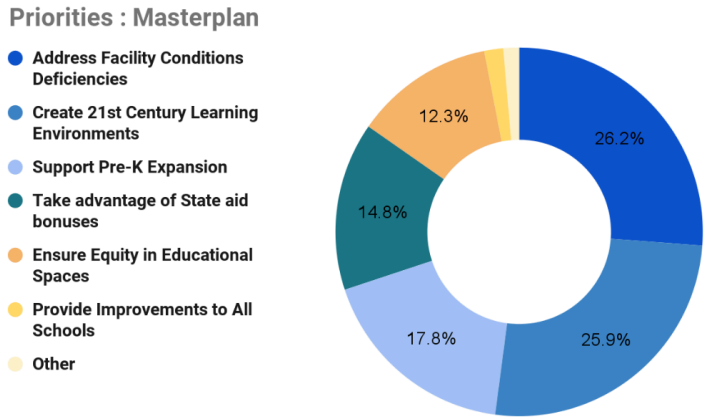
04 Prioritized Planning Concepts

To obtain an understanding of the district wide priorities for educational spaces and masterplanning, teachers and staff were asked to rank planning elements. The educational spaces that were prioritized included: core classroom improvements, welcome and safe entries, and social and emotional spaces. The masterplanning priorities included: facility condition deficiencies, creation of 21st learning environments, and supporting Pre-K expansion.

What 3 types of educational spaces should be prioritized in the planning?



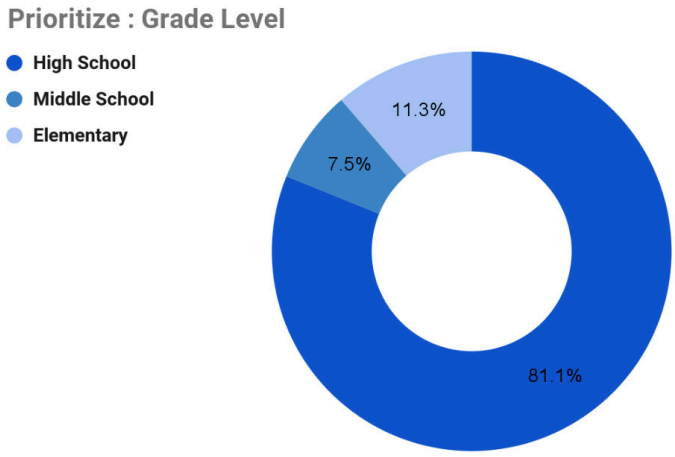
What 3 priorities would you want to make sure the masterplanning addresses?



Facility Priorities

The teachers and staff were also asked to prioritize the grade level that was need of a new/replacement facility. Teachers and staff favored the need to prioritize the High School facility.

If the district were to build a new/replacement facility - what grade levels would you prioritize?



03 - Curriculum

01 Overview

A critical part of the educational facility planning effort is to have a strong understanding of the educational program being delivered by grade level, and at each school. This information is gathered by collecting district curriculum, as well as other documents - such as the district strategic plan - that provide a strong understanding of current and future pedagogical practices. The documentation included herein represents a high-level overview of curriculum by grade level grouping, which provides a baseline for the educational program analysis, and will be integrated in future planning to ensure that facility decisions effectively integrate teaching and learning.

02 Social Emotional Learning

The Bristol Warren Regional School District recognizes that in order to support students holistically, it is critical to develop skills like self-control, perseverance, mindfulness, and self-motivation. These practices have been integrated into the BWRSD curriculum and instruction and include a variety of activities to foster feelings of welcoming, inclusion, and engagement.

Like any learning initiative, learning environments must be provided to adequately support the work. Currently, BWRSD has few rooms and spatial resources dedicated to SEL. This had been identified as a goal in strategic planning, and emerged as a priority in the teacher surveys conducted during educational visioning.

03 K-12 Career Pathways

The Mt. Hope High School offers students the opportunity to explore their interests through rigorous academic offerings and real-world learning opportunities to pursue future careers, post-secondary training, and 2 and 4-year college coursework. Mt. Hope offers two CTE programs and four pathways that provide in-depth opportunities for students to learn essential 21st Century Employability Skills - Collaboration, Communication, Critical Thinking, Self-Management, and Professionalism- required for post-secondary coursework and the workplace.

The CTE programs that are currently accredited by the RI Department of Education:

- Business and Finance
- Project Lead the Way Pre-Engineering.

In addition, the Mt. Hope High School provides several pathways that are awaiting accreditation:

- Architecture and Construction
- Bioscience
- Information Technology

Each CTE program and pathway supports our goals for preparing students to be college and career-ready. Our CTE Programs and pathways of study offer embedded coursework-based learning as well as off-site work-based learning that proves rigorous, hands-on learning for relevant experiences.

The current and proposed CTE programs have been identified as a district priority, and require further study to identify spatial needs to support state of the art career pathway programs.

04 Grades K-5 Overview

English Language Arts Curriculum

The following modules identify which standards are directly taught within the scope and sequence. Each module has an essential question worth exploring.

Kindergarten Overview

Module 01 - Curious about Kindergarten
Essential Question : What will I discover in Kindergarten?

Module 02 - There's Only One Me!
Essential Question : What makes each of us special?

Module 03 - My Community Heroes
Essential Question : What makes a community?

Module 04 - Happy Healthy Me
Essential Question : How can I be my healthiest?

Module 05 - I Can Do It!
Essential Question : What does it mean to try hard?

Module 06 - Home of the Free and the Brave
Essential Question : What makes the USA special?

Module 07 - Zoom In!
Essential Question : What can I learn when I look closely?

Module 08 - From Plant to Plate
Essential Question : How do plants become food?

Module 09 - Animal Habitats
Essential Question : What makes a habitat a home?

Grade 01 Overview

Module 01 - Nice to Meet you!
Essential Question : How can making new friends and learning new things help us?

Module 02 - My Family, My Community
Essential Question : How does everyone in my family and community make them special?

Module 03 - Amazing Animals
Essential Question : How do animals' bodies help them?

Module 04 - Better Together
Essential Question : Why is important to do my best and get along with others?

Module 05 - Now You See It, Now You Don't
Essential Question : Why do light and dark come and go?

Module 06 - Celebrate America
Essential Question : What do holidays and symbols tell about our country?

Module 07 - The Big Outdoors
Essential Question : How do things in nature change?

Module 08 - Tell Me a Story
Essential Question : What lessons can we learn from stories?

Module 09 - Grow, Plants, Grow!
Essential Question : What do plants need to live and grow?

Grade 02 Overview

Module 01 - Be a Super Citizen
Essential Question : How can being a good citizen make a difference in others?

Module 02 - Look Around and Explore!
Essential Question : How does exploring help us understand the world around us?

Module 03 - Meet in the Middle
Essential Question : How can people work out disagreements?

Module 04 - Once Upon a Time
Essential Question : What lessons can we learn from the characters in stories?

Module 05 - Lead the Way
Essential Question : What are the qualities of a good leader?

Module 06 - Weather Wise
Essential Question : How does weather affect us?

Module 07 - Everyone Has a Story
Essential Question : How do our experiences shape our lives?

Module 08 - Time to Grow!
Essential Question : What do plants need to live and grow?

Module 09 - Home Sweet Habitat
Essential Question : How do living things in a habitat depend on each other?

Grade 03 Overview

Module 01 - What a Character!
Essential Question : What makes a character interesting?

Module 02 - Use your Words
Essential Question : How do people use words to express themselves?

Module 03 - Let Freedom Ring!
Essential Question : How do historic places, documents, and symbols represent our nation?

Module 04 - Stories on Stage
Essential Question : Why might some stories be better told as plays?

Module 05 - Teamwork
Essential Question : What can sports teach us about working together?

Module 06 - Animal Behaviors
Essential Question : What behaviors help animals survive?

Module 07 - Make a Difference
Essential Question : How can one person make a meaningful difference in their local and global community?

Module 08 - Imagine! Invent!
Essential Question : What does it take to make a successful invention?

Module 09 - From Farm to Table
Essential Question : How does food get to your table?

Grade 04 Overview

Module 01 - What Makes Us Who We Are?
Essential Question : How do your experiences help shape your identity?

Module 02 - Come to Your Senses
Essential Question : How do people and animals use their senses to navigate the world?

Module 03 - Rise to the Occasion
Essential Question : What does it take to meet a challenge?

Module 04 - Heroic Feats
Essential Question : What makes someone a hero?

Module 05 - Art Everywhere
Essential Question : How far can your talents take you?

Module 06 - Marvels of Nature
Essential Question : What makes Earth's natural wonders exciting and unique?

Module 07 - Tricksters and Tall Tales
Essential Question : What lessons can you learn from characters in traditional tales?

Module 08 - Food for Thought
Essential Question : What can we do to make more healthful food choices

Module 09 - Global Guardians
Essential Question : What can people do to care for our planet?

Grade 05 Overview

Module 01 - Inventors at Work
Essential Question : What kinds of circumstances push people to create new inventions?

Module 02 - What a Story
Essential Question : How does genre affect the way a story is told?

Module 03 - Natural Disasters
Essential Question : How can learning about natural disasters make us safer?

Module 04 - Wild West
Essential Question : What character traits were needed in people who settled the West?

Module 05 - Project Earth
Essential Question : How can caring for Earth and its living things improve life now and in the future?

Module 06 - Art for Everyone
Essential Question : How do different art forms impact people in different ways?

Module 07 - Above, Below, and Beyond
Essential Question : What role does curiosity play in exploration?

Module 08 - A New Home
Essential Question : How do people adapt new experiences and make a new place home?

Module 09 - Unexpected, Unexplained
Essential Question : What makes something mysterious, and what drives people to solve mysteries?

Mathematics Curriculum

Grades K-5 Ready Common Core Mathematics

Ready Common Core Mathematics helps teachers create a rich classroom environment in which students at all levels become active, real-world problem solvers. Through teacher-led instruction, students develop mathematical reasoning, engage in discourse, and build strong mathematical habits. The program's instructional framework supports educators as they strengthen their teaching practices and facilitate meaningful discourse that encourages all learners.

Ready Common Core Mathematics

- Encourages students to develop a deeper understanding of mathematics concepts through the embedded Standards for Mathematical Practice
- Builds on students' prior knowledge with lessons that make connections within and across grade levels and directly address the major focus of the grade
- Ready Mathematics 6–8, ©2020 Edition provides additional features for supporting English Learners, such as:
    - English Language Development guidelines on scaffolding language use during instruction to benefit students at different levels of English proficiency
    - Language routines that integrate language and mathematics
    - Concept development activities that allow students of varying mathematical and English language abilities to build on familiar concepts

Student Materials

Rigor That's Reachable

Ready Mathematics develops conceptual understanding through reasoning, modeling, and discussion, while also developing students' procedural fluency. The Think–Share–Compare discourse-based instructional routine supports teachers in facilitating meaningful mathematical discourse in a manageable way that engages all learners.

- Develops mathematical reasoning through lessons that use real-world problem solving as instruction
- Provides on going opportunities for cooperative dialogue and mathematical discourse
- Embeds Standards for Mathematical Practice to help students develop strong habits of mind
- Strengthens students' ability to use higher-order thinking and complex reasoning through questions that focus on higher DOK levels

Practice and Problem Solving

Ready Mathematics Practice and Problem Solving book accelerates your students' understanding of concepts and skills and can be used for independent practice in class, after school, or at home.

- Helps parents or caregivers understand the content and participate in the lesson activity with a family letter for every lesson
- Includes Unit Games as an engaging way for students to work collaboratively as they build fluency and deepen conceptual understanding
- Encourages students to explain their thinking with increasingly difficult problems that require greater levels of higher-order thinking
- Integrates concepts ands kills from multiple standards within the unit to solve a multi-step problem with rigorous performance tasks

05 Grades 6-8 Overview

English Language Arts Curriculum - Study Sync

StudySync is the adopted English Language Arts curriculum for grades 6-8 in the BWRSD. KMS students access StudySync both in print and online. StudySync blends contemporary and classic literature in the program's rigorous reading routines. Skill lessons build students' foundational language and comprehension skills as well as reading, writing, and research inquiry skills.

Grades 6 - Units of Study

The Grade 6 Core ELA Units take students through literary and nonfiction texts that explore individuals facing crucial decisions, learning from their responses, becoming a better version of themselves. Unit 1, Testing Our Limits, examines what we do when life gets hard. Unit 2, You and Me, focuses on relationships and asks the essential question: How do relationships shape us? Unit 3, In the Dark, asks students to consider how they can figure out what to do when there are no instructions, while Unit 4, Personal Best, asks students to consider the unit's driving question—Which qualities of character matter most?—by providing a range of texts that examine individuals wrestling with realistic and familiar struggles. Next, Unit 5, Making Your Mark, asks students to think about their own story. Finally, students finish up the year by thinking about the future as they address the question "Who are you meant to be?" in Unit 6, True to Yourself.

Grades 7 - Units of Study

The Grade 7 Core ELA units take students through literary and nonfiction texts that explore how individuals are affected by their choices, journeys, and interactions with others. Students will begin this unit as readers, and they will finish as writers, as they apply what they have learned about writing genres to their own writing projects.

Grades 8 - Units of Study

The Grade 8 Core ELA Units take students through literary and nonfiction texts that explore how individuals are affected by their choices, their relationships, and the world around them. In Unit 1, Everyone Loves a Mystery, students will try to determine what attracts us to stories of suspense. Unit 2, Past and Present, asks the essential question: What makes you, you? Unit 3, No Risk, No Reward, asks students to consider why we take chances, while Unit 4, Hear Me Out, asks students to consider the unit's driving question—How do you choose the right words?—by providing a range of texts that allow students to consider how a person's words can affect an audience. Next, Unit 5's Trying Times asks students to think about who they are in a crisis. Finally, students finish up the year with an examination of science fiction and fantasy texts as they think about the question "What do other worlds teach us about our own?" in Unit 6, Beyond Reality.

Grades 6-8 Illustrative Mathematics

Driven by student discourse, IM Certified™ curricula are rich, engaging core programs built around focus, coherence, and rigor. The curricula are trusted, expert-authored materials developed to equip all students to thrive in mathematics.

About the Curriculum

- Spark discussion, perseverance, and enjoyment of mathematics.
- Intentional lesson design that promotes mathematical growth.
- The purpose and intended use of the Algebra 1 Supports Course.

Grade 06

Unit 01 - Area and Surface
In this unit, students learn to find areas of polygons by decomposing, rearranging, and composing shapes. They learn to understand and use the terms “base” and “height,” and find areas of parallelograms and triangles. Students approximate areas of non-polygonal regions by polygonal regions. They represent polyhedra with nets and find their surface areas.

Unit 02 - Introducing Ratios
In this unit, students learn to understand and use the terms “ratio,” “rate,” “equivalent ratios,” “per,” “at this rate,” “constant speed,” and “constant rate,” and to recognize when two ratios are or are not equivalent. They represent ratios as expressions, and represent equivalent ratios with double number line diagrams, tape diagrams, and tables. They use these terms and representations in reasoning about situations involving color mixtures, recipes, unit pricing, and constant speed.

Unit 03 - Unit Ranges and Percentages
In this unit, students learn to understand and use the terms “unit rate,” “speed,” “pace,” “percent,” and “percentage,” and recognize that equivalent ratios have equal unit rates. They represent percentages with tables, tape diagrams, and double number line diagrams, and as expressions. They use these terms and representations in reasoning about situations involving unit price, constant speed, and measurement conversion.

Unit 04 - Dividing Factors
In this unit, students examine how the relative sizes of numerator and denominator affect the size of their quotient when numerator or denominator (or both) is a fraction. They solve problems involving lengths and areas of figures with fractional side lengths and extend the formula for the volume of a right rectangular prism to prisms with fractional edge lengths and use it to solve problems.

Unit 05 - Arithmetic in Base Ten
In this unit, students compute sums, differences, products, and quotients of multi-digit whole numbers and decimals, using efficient algorithms. They use calculations with whole numbers and decimals to solve problems set in real-world contexts.

Unit 06 - Expressions and Equations
In this unit, students learn to understand and use the terms “variable,” “coefficient,” “solution,” “equivalent expressions,” “exponent,” “independent variable,” and “dependent variable.” They represent collections of equivalent ratios as equations and use and make connections between tables, graphs, and linear equations that represent the same relationships.

Unit 07 - Rational Numbers
In this unit, students interpret signed numbers in contexts (e.g., temperature above or below zero, elevation above or below sea level). They understand and use the terms “positive number,” “negative number,” “rational number,” “opposite,” “sign,” “absolute value,” “a solution to an inequality,” “less than,” “greater than,” and the corresponding symbols. They plot points with signed rational number coordinates on the number line, and recognize and use the connection between relative position of two points on the number line and inequalities involving the coordinates of the points.

Unit 08 - Data Sets and Distributions
In this unit, students learn about populations and study variables associated with a population. They understand and use the terms "numerical data," "categorical data," "survey" (as noun and verb), "statistical question," "variability," "distribution," and "frequency." They make and interpret histograms, bar graphs, tables of frequencies, and box plots. They describe distributions (shown on graphical displays) using terms such as "symmetrical," "peaks," "gaps," and "clusters." They work with measures of center—understanding and using the terms "mean," "average," and "median." They work with measures of variability—understanding and using the terms "range," "mean absolute deviation" or MAD, "quartile," and "interquartile range" or IQR. They interpret measurements of center and variability in contexts.

Unit 09 - Putting it All Together
In this optional unit, students use concepts and skills from previous units. In solving Fermi problems, they use measurement conversions together with their knowledge of volumes or surface areas of right rectangular prisms or the relationship of distance, rate, and time. In answering questions about ratios of two populations, they work with percentages that include numbers expressed in the form *a/b* or as decimals. In answering questions about diagrams of rectangles with whole-number dimensions, they connect arithmetic features of the dimensions such as remainder or greatest common factor with geometric features of the diagrams. In answering questions about votes, voting methods, and equitable distribution, they use their knowledge of equivalent ratios, part–part ratios, percentages, and unit rates.

Grade 07

Unit 01 - Scale Drawings
In this unit, students learn to understand and use the terms "scaled copy," "to scale," "scale factor," "scale drawing," and "scale," and recognize when two pictures or plane figures are or are not scaled copies of each other. They use tables to reason about measurements in scaled copies, and recognize that angle measures are preserved in scaled copies, but lengths are scaled by a scale factor and areas by the square of the scale factor. They make, interpret, and reason about scale drawings. These include maps and floor plans that have scales with and without units.

Unit 02 - Introducing Proportional Relationships
In this unit, students learn to understand and use the terms "proportional," "constant of proportionality," and "proportional relationship," and recognize when a relationship is or is not proportional. They represent proportional relationships with tables, equations, and graphs. Students use these terms and representations in reasoning about situations that involve constant speed, unit pricing, and measurement conversions.

Unit 03 - Measuring Circles
In this unit, students learn to understand and use the term "circle" to mean the set of points that are equally distant from a point called the "center." They gain an understanding of why the circumference of a circle is proportional to its diameter, with constant of proportionality *pie* . They see informal derivations of the fact that the area of a circle is equal to *pie* times the square of its radius. Students use the relationships of circumference, radius, diameter, and area of a circle to find lengths and areas, expressing these in terms of *pie* or using appropriate approximations of *pie* to express them numerically.

Unit 04 - Proportional Relationships and Percentages
In this unit, students use ratios, scale factors, unit rates (also called constants of proportionality), and proportional relationships to solve multi-step, real-world problems that involve fractions and percentages. They represent amounts and corresponding percent rates with double number line diagrams and tables. They use these terms and representations in reasoning about situations involving sales taxes, tips, markdowns, markups, sales commissions, interest, depreciation, and scaling a picture. Students use equations to represent proportional relationships in which the constant of proportionality arises from a percentage, e.g., relationship between price paid and amount of sales tax paid.

Unit 05 - Rational Number Arithmetic
In this unit, students interpret signed numbers in contexts (e.g., temperature, elevation, deposit and withdrawal, position, direction, speed and velocity, percent change) together with their sums, differences, products, and quotients. Students use tables and number line diagrams to represent sums and differences of signed numbers or changes in quantities represented by signed numbers such as temperature or elevation, becoming more fluent in writing different numerical addition and subtraction equations that express the same relationship. They compute sums and differences of signed numbers. They plot points in the plane with signed number coordinates, representing and interpreting sums and differences of coordinates. They view situations in which objects are traveling at constant speed (familiar from previous units) as proportional relationships.

Unit 06 - Expressions, Equations, and Equalities
They draw, interpret, and write equations in one variable for balanced "hanger diagrams," and write expressions for sequences of instructions, e.g., "number puzzles." They use tape diagrams together with equations to represent situations with one unknown quantity. They learn algebraic methods for solving equations. Students solve linear inequalities in one variable and represent their solutions on the number line. They understand and use the terms "less than or equal to" and "greater than or equal to," and the corresponding symbols. They generate expressions that are equivalent to a given numerical or linear expression. Students formulate and solve linear equations and inequalities that represent real-world situations.

Unit 07 - Angles, Triangles, and Prisms
In this unit, students investigate whether sets of angle and side length measurements determine unique triangles or multiple triangles, or fail to determine triangles. Students also study and apply angle relationships, learning to understand and use the terms "complementary," "supplementary," "vertical angles," and "unique." The work gives them practice working with rational numbers and equations for angle relationships. Students analyze and describe cross-sections of prisms, pyramids, and polyhedra. They understand and use the formula for the volume of a right rectangular prism, and solve problems involving area, surface area, and volume.

Unit 08 - Probability and Sampling
In this unit, students understand and use the terms "event," "sample space," "outcome," "chance experiment," "probability," "simulation," "random," "sample," "random sample," "representative sample," "overrepresented," "underrepresented," "population," and "proportion." They design and use simulations to estimate probabilities of outcomes of chance experiments and understand the probability of an outcome as its long-run relative frequency. They represent sample spaces (that is, all possible outcomes of a chance experiment) in tables and tree diagrams and as lists. They calculate the number of outcomes in a given sample space to find the probability of a given event. They consider the strengths and weaknesses of different methods for obtaining a representative sample from a given population. They generate samples from a given population, e.g., by drawing numbered papers from a bag and recording the numbers, and examine the distributions of the samples, comparing these to the distribution of the population. They compare two populations by comparing samples from each population.

Unit 09 - Putting it All Together
In this optional unit, students use concepts and skills from previous units to solve three groups of problems. In calculating or estimating quantities associated with running a restaurant, e.g., number of calories in one serving of a recipe, expected number of customers served per day, or floor space, they use their knowledge of proportional relationships, interpreting survey findings, and scale drawings. In estimating quantities such as age in hours and minutes or number of times their hearts have beaten, they use measurement conversions and consider accuracy of their estimates. Estimation of area and volume measurements from length measurements introduces considerations of measurement error. In designing a five-kilometer race course for their school, students use their knowledge of measurement and scale drawing. They select appropriate tools and methods for measuring their school campus, build a trundle wheel and use it to make measurements, make a scale drawing of the course on a map or a satellite image of the school grounds, and describe the number of laps, start, and finish of the race.

Grade 08

Unit 01 - Rigid Transformations and Congruence
In this unit, students learn to understand and use the terms “reflection,” “rotation,” “translation,” recognizing what determines each type of transformation, e.g., two points determine a translation. They learn to understand and use the terms “transformation” and “rigid transformation.” They identify and describe translations, rotations, and reflections, and sequences of these, using the terms “corresponding sides” and “corresponding angles,” and recognizing that lengths and angle measures are preserved. They draw images of figures under rigid transformations on and off square grids and the coordinate plane. They use rigid transformations to generate shapes and to reason about measurements of figures. They learn to understand congruence of plane figures in terms of rigid transformations. They recognize when one plane figure is congruent or not congruent to another. Students use the definition of “congruent” and properties of congruent figures to justify claims of congruence or non-congruence.

Unit 02 - Dilations, Similarity, and Introducing Slope
In this unit, students learn to understand and use the term “dilation,” and to recognize that a dilation is determined by a point called the “center” and a number called the “scale factor.” They learn that under a dilation, the image of a circle is a circle and the image of a line is a line parallel to the original. They draw images of figures under dilations on and off the coordinate plane. They use the terms “corresponding sides” and “corresponding angles” to describe correspondences between a figure and its dilated image, and recognizing that angle measures are preserved, but lengths are multiplied by the scale factor. They learn to understand similarity of plane figures in terms of rigid transformations and dilations. They learn to recognize when one plane figure is similar or not similar to another. They use the definition of “similar” and properties of similar figures to justify claims of similarity or non-similarity. Students learn the terms “slope” and “slope triangle,” and use the similarity of slope triangles on the same line to understand that any two distinct points on a line determine the same slope.

Unit 03 - Linear Relationships
In this unit, students learn to understand and use the terms “rate of change,” “linear relationship,” and “vertical intercept.” They deepen their understanding of slope, and they learn to recognize connections among rate of change, slope, and constant of proportionality, and between linear and proportional relationships. They learn to understand that lines with the same slope are translations of each other. They represent linear relationships with tables, equations, and graphs that include lines with negative slopes or vertical intercepts, and horizontal and vertical lines. They learn to use the term “solution of an equation” when working with one or two linear equations in two variables, and learn to understand the graph of a linear equation as the set of its solutions. Students use these terms and representations in reasoning about situations involving one or two constant rates.

Unit 04 - Linear Equations and Linear Systems
In this unit, students write and solve linear equations in one variable. These include equations in which the variable occurs on both sides of the equal sign, and equations with no solutions, exactly one solution, and infinitely many solutions. They learn that any one such equation is false, true for one value of the variable, or true for all values of the variable. They interpret solutions in the contexts from which the equations arose. Students write and solve systems of linear equations in two variables and interpret the solutions in the contexts from which the equations arose. They learn what is meant by a solution for a system of equations, namely that a solution of the system is a solution for each equation in the system. Students use the understanding that each pair of values that make an equation true are coordinates of a point on the graph of the equation and conversely that the coordinates of each point on the graph of an equation make the equation true.

Unit 05 - Functions and Volume
In this unit, students are introduced to the concept of a function. They learn to understand and use the terms “input,” “output,” and “function,” e.g., “temperature is a function of time.” They describe functions as increasing or decreasing between specific numerical inputs, and they consider the inputs of a function to be values of its independent variable and its outputs to be values of its dependent variable. They use tables, equations, and graphs to represent functions, and describe information presented in tables, equations, or graphs in terms of functions. In working with linear functions, students coordinate and synthesize their understanding of “constant of proportionality”, “rate of change” and “slope”, and increasing and decreasing. Students perceive similarities in structure between pairs of known and new volume formulas: for a rectangular prism and a cylinder; and for a cylinder and a cone. Students rearrange these formulas to show functional relationships and use them to reason about how the volume of a figure changes as another measurement changes, e.g., the height of a cylinder is proportional to its volume; if the radius of a cylinder triples, its volume becomes 9 times larger.

Unit 06 - Associations in Data
They draw, interpret, and write equations in one variable for balanced "hanger diagrams," and write expressions for sequences of instructions, e.g., "number puzzles." They use tape diagrams together with equations to represent situations with one unknown quantity. They learn algebraic methods for solving equations. Students solve linear inequalities in one variable and represent their solutions on the number line. They understand and use the terms "less than or equal to" and "greater than or equal to," and the corresponding symbols. They generate expressions that are equivalent to a given numerical or linear expression. Students formulate and solve linear equations and inequalities that represent real-world situations.

Unit 07 - Exponents and Scientific Notation
In this unit, students investigate whether sets of angle and side length measurements determine unique triangles or multiple triangles, or fail to determine triangles. Students also study and apply angle relationships, learning to understand and use the terms "complementary," "supplementary," "vertical angles," and "unique." The work gives them practice working with rational numbers and equations for angle relationships. Students analyze and describe cross-sections of prisms, pyramids, and polyhedra. They understand and use the formula for the volume of a right rectangular prism, and solve problems involving area, surface area, and volume.

Unit 08 - Pythagorean Theorem and Irrational Numbers
In this unit, students understand and use the terms "event," "sample space," "outcome," "chance experiment," "probability," "simulation," "random," "sample," "random sample," "representative sample," "overrepresented," "underrepresented," "population," and "proportion." They design and use simulations to estimate probabilities of outcomes of chance experiments and understand the probability of an outcome as its long-run relative frequency. They represent sample spaces (that is, all possible outcomes of a chance experiment) in tables and tree diagrams and as lists. They calculate the number of outcomes in a given sample space to find the probability of a given event. They consider the strengths and weaknesses of different methods for obtaining a representative sample from a given population. They generate samples from a given population, e.g., by drawing numbered papers from a bag and recording the numbers, and examine the distributions of the samples, comparing these to the distribution of the population. They compare two populations by comparing samples from each population.

Unit 09 - Putting it All Together
In this optional unit, students use concepts and skills from previous units to solve three groups of problems. In calculating or estimating quantities associated with running a restaurant, e.g., number of calories in one serving of a recipe, expected number of customers served per day, or floor space, they use their knowledge of proportional relationships, interpreting survey findings, and scale drawings. In estimating quantities such as age in hours and minutes or number of times their hearts have beaten, they use measurement conversions and consider accuracy of their estimates. Estimation of area and volume measurements from length measurements introduces considerations of measurement error. In designing a five-kilometer race course for their school, students use their knowledge of measurement and scale drawing. They select appropriate tools and methods for measuring their school campus, build a trundle wheel and use it to make measurements, make a scale drawing of the course on a map or a satellite image of the school grounds, and describe the number of laps, start, and finish of the race.

06 Grades 9-12 Overview

English Language Arts Curriculum - Study Sync

The following units identify which standards are directly taught within each unit as well as where students have the opportunity for spiraled practice.

Grade 09 Scope and Sequence

Unit 01 - Divided We Fall
Essential Question : Why do we feel the need to belong?

Unit 02 - The Call to Adventure
Essential Question : What will you learn on your journey?

Unit 03 - Declaring Your Genius
Essential Question : How do you define intelligence?

Unit 04 - The Art of Disguise
Essential Question : How do we perform for different audiences?

Unit 05 - The Dance of Romance
Essential Question : When is love worth the fall?

Unit 06 - Human Potential
Essential Question : How can you help others achieve their goals?

Grade 10 Scope and Sequence

Unit 01 - The Power of Communication
Essential Question : Why do words matter?

Unit 02 - Moving Forward
Essential Question : How does culture influence your goals?

Unit 03 - The Persistence of Memories
Essential Question : How does the past impact the future?

Unit 04 - The Tires That Bind
Essential Question : What brings us back to one another?

Unit 05 - Chopped, Stirred, and Blended
Essential Question : What are the ingredients of culture?

Unit 06 - Origin Stories
Essential Question : How does who we were guide who will we become?

Grade 11 Scope and Sequence

Unit 01 - Breaking Away
Essential Question : How does independence define the American spirit?

Unit 02 - The Highway
Essential Question : How do journeys influence perspective?

Unit 03 - No Strangers Here
Essential Question : How does place shape the individual?

Unit 04 - Living the Dream
Essential Question : What does home mean to you?

Unit 05 - The Wars We Wage
Essential Question : What does it mean to win?

Unit 06 - With Malice Toward None
Essential Question : How can we attain justice for all?

Grade 12 Scope and Sequence

Unit 01 - What's Next?
Essential Question : How can we transform the future?

Unit 02 - Uncovering the Truth
Essential Question : How do challenges cause us to reveal our true selves?

Unit 03 - Against the Wind
Essential Question : How do leaders fight for their ideas?

Unit 04 - Sculpting Reality
Essential Question : What is the power of story?

Unit 05 - Fractured Selves
Essential Question : What causes individuals to feel alienated?

Unit 06 - Times of Transition
Essential Question : How are we shaped by change?

Grades 9-12 Illustrative Mathematics

About the Curriculum

- IM Algebra 1, Geometry, and Algebra 2 are problem-based core curricula rooted in content and practice standards to foster learning and achievement for all. Students learn by doing math, solving problems in mathematical and real-world contexts, and constructing arguments using precise language. Teachers can shift their instruction and facilitate student learning with high-leverage routines that guide them in understanding and making connections between concepts and procedures.

Algebra I

Unit 01 - One-variable Statistic
In this unit on one-variable statistics, students discuss the difference between statistical and non-statistical questions and classify that data as numerical or categorical. They represent and interpret data using data displays, and describe distributions using the appropriate terminology. They create data displays and calculate summary statistics using technology, then interpret the values in context. They learn that standard deviation is a measure of variability, and they interpret standard deviation in context. They recognize outliers, investigate their source, make decisions about excluding them from the data set, and understand how the presence of outliers impacts measures of center and measures of variability. They compare measures of center and the standard deviation and the interquartile range for different data sets. In the culminating activity, students pose and answer a statistical question by designing an experiment, collecting data, and analyzing data.

Unit 02 - Linear Equations, Inequalities, and Systems
In this unit, students expand and deepen their prior understanding of expressions, equations, and inequalities. Students reason about equations, inequalities, and systems of equations and inequalities as ways to represent constraints, and they reason about the process of solving equations and inequalities in terms of finding values that satisfy those constraints. The process of finding solutions may involve rewriting and manipulating equations. Students learn to explain and validate the steps to do so. Throughout the unit, students practice reasoning about situations and mathematical representations, interpreting expressions and numbers in context, and using mathematical tools to model quantities and relationships.

Unit 03 - Two-variable Statistics
In grade 8, students informally constructed scatter plots and lines of fit, noticed linear patterns, and observed associations in categorical data using two-way tables. In this unit, students revisit two-way tables to find associations in categorical data using relative frequencies. The unit also builds on previous knowledge of scatter plots by assessing how well a linear model matches the data using residuals as well as the correlation coefficient for best-fit lines (found using technology). It closes with an exploration of the difference between correlation and causal relationships as well as an opportunity to apply this learning to anthropology and sports.

Unit 04 - Functions
In this unit, students expand their understanding of functions, building on what they learned in grade 8. Students develop their capacity to represent, interpret, and use functions to make sense of quantities in situations and to solve problems. They are introduced to new tools for communicating about functions: function notation, domain and range, average rates of change, and mathematical terms for describing key features of graphs. They also develop their ability to gather information about a function from its graph, by connecting features of the graph to features of the situation and other representations, and to sketch a graph that tells the story about the function. Along the way, students begin to distinguish categories of functions: linear functions, piecewise-defined functions (the absolute value function, in particular), and inverse functions. Throughout the unit, students use, interpret, and connect the different representation of functions, both in and out of context.

Unit 05 - Introduction to Exponential Functions
In this unit, students are introduced to exponential relationships. Students learn that exponential relationships are characterized by a constant quotient over equal intervals, and compare them to linear relationships which are characterized by a constant difference over equal intervals. They encounter contexts with quantities that change exponentially. These contexts are presented verbally and with tables and graphs. They construct equations and use them to model situations and solve problems. They learn that the output of an increasing exponential function is eventually greater than the output of an increasing linear function for the same input.

Unit 06 - Introduction to Quadratic Functions
In this unit, students study quadratic functions systematically. They look at patterns which grow quadratically and contrast them with linear and exponential growth. Then they examine other quadratic relationships via tables, graphs, and equations, gaining appreciation for some of the special features of quadratic functions and the situations they represent. They analyze equivalent quadratic expressions and how these expressions help to reveal important behavior of the associated quadratic function and its graph. They gain an appreciation for the factored, standard, and vertex forms of a quadratic function and use these forms to solve problems.

Unit 07 - Quadratic Equations
In this unit, students interpret, write, and solve quadratic equations. They learn that writing and solving quadratic equations is a way to precisely describe and answer questions about quadratic functions. It is especially useful for finding input values that produce certain outputs.

Students solve quadratic equations by reasoning, by rewriting expressions in factored form and using the zero product property, by completing the square, and by applying the quadratic formula. They also rewrite expressions in vertex form to solve problems about the maximum or minimum value of a function. Along the way, students see that quadratic equations may have 2, 1, or 0 solutions, and that the solutions may be rational or irrational.

Geometry

Unit 01 - Constructions and Rigid Transformations
In this unit, students first informally explore geometric properties using straightedge and compass constructions. This allows them to build conjectures and observations before formally defining rotations, reflections, and translations. In middle school, students studied transformations of figures in the coordinate plane. In this unit, they transition to more formal definitions that don't rely on the coordinate plane, and the focus shifts from transforming whole figures towards a more point-by-point analysis. Students then begin to use the rigorous definitions they developed to prove statements involving angles and distances, preparing them for congruence proofs in the next unit.

Unit 02 - Congruence
In this unit, students begin by reasoning about the relationships between congruent parts of figures, and congruent figures. They use transformations as tools for reasoning and generalizing. Students use transformations to prove three theorems about triangle congruence: Side-Angle-Side Triangle Congruence, Angle-Side-Angle Triangle Congruence, and Side-Side-Side Triangle Congruence. As students prove new theorems, they apply those theorems to prove results about quadrilaterals, isosceles triangles, and other figures. Finally, students have a chance to apply their skills to conjecture and explore congruences and properties of quadrilaterals.

Unit 03 - Similarity
In this unit, students use dilations and rigid transformations to justify triangle similarity theorems including the Angle-Angle Triangle Similarity Theorem. Students explicitly build on their work with congruence and rigid motions, establishing that triangles are similar by dilating them strategically. The unit balances a focus on proof with a focus on using similar triangles to find unknown side lengths and angle measurements.

Unit 04 - Right Triangle Trigonometry
In this unit students build an understanding of ratios in right triangles which leads to naming cosine, sine, and tangent as trigonometric ratios. Practicing without naming the ratios allows students to connect similarity, proportional reasoning, and scale factors to right triangles with a congruent acute angle before the calculator takes over some of the computation. Students encounter several contexts to both make sense of and apply right triangle measurement.

Unit 05 - Solid Geometry
In this unit, students practice spatial visualization in three dimensions, study the effect of dilation on area and volume, derive volume formulas using dissection arguments and Cavalieri's Principle, and apply volume formulas to solve problems involving surface area to volume ratios, density, cube roots, and square roots.

Unit 06 - Introduction to Quadratic Functions
This unit brings together students' experience from previous years with their new understanding from this course for an in-depth study of coordinate geometry. Students encounter a new coordinate transformation notation such as (x,y) → (x+3,y+1) , which connects transformations to functions. Then they use transformations and the Pythagorean Theorem to build equations of circles, parabolas, parallel lines, and perpendicular lines from definitions. Students apply these ideas to proofs, such as classifying quadrilaterals. Finally, students use weighted averages to partition segments, scale figures, and locate the intersection point of the medians of a triangle.

Unit 07- Circles
In this unit, students analyze relationships between segments and angles in circles, which leads to the construction of inscribed and circumscribed circles of triangles. Students solve problems involving arc length and sector area, and they use the similarity of all circles and ideas of arc length to develop the concept of radian measure for angles.

Unit 08 - Conditional Probability
In this unit, students extend what they learned about probability in grade 7 by considering events that are combined in various ways including both occurring, at least one occurring, and one event happening under the condition that the other happens as well.

Algebra II

Unit 01 - Sequences and Functions
This unit provides an opportunity to revisit representations of functions (including graphs, tables, and expressions) at the beginning of the Algebra 2 course, and also introduces the concept of sequences. Through many concrete examples, students learn to identify geometric and arithmetic sequences. Beginning with an invitation to describe sequences informally, students progress to writing terms of sequences arising from mathematical situations, using representations such as tables and graphs. Throughout the unit, students learn that sequences are functions and that geometric and arithmetic sequences are examples of the exponential and linear functions they learned about in previous courses, defined on a subset of the integers. In the last part of the unit, students use sequences to model several situations represented in different ways. Finally, students encounter some situations where it makes sense to compute the sum of a finite sequence. A formula for such a sum is developed in a future unit.

Unit 02 - Polynomials and Rational Functions
In this unit, students expand their understanding of polynomials from linear and quadratic to those of higher degree. They are introduced to situations polynomials can model. They study graphs and equations of the same function and make connections between factors and zeros. Students learn to divide polynomials and to sketch graphs of polynomials given in factored form. Building on this work, students investigate rational functions. They learn to interpret the meaning of asymptotes in context and strategies for solving rational equations. The unit concludes with a study of polynomial identities and deriving the formula for the sum of the first n terms in a geometric sequence.

Unit 03 - Complex Numbers and Rational Exponents
In this unit, students use what they know about exponents and radicals to extend exponent rules to include rational exponents, solve various equations involving squares and square roots, develop the concept of complex numbers by defining a new number i whose square is -1, and use complex numbers to find solutions to quadratic equations.

Unit 04 - Exponential Functions and Equations
In this unit, students build on their understanding of exponential functions from an earlier course. Previously, they saw functions whose domain is the integers. Here, they write, interpret, and evaluate exponential functions whose domain is the real numbers. In the second half of the unit, students learn about logarithms in base 2 and 10 as a way to express the exponent that makes an exponential equation true. They then use logarithms to solve exponential equations and to answer questions about exponential functions. During this time, students encounter the constant *e* and learn that it is used to model situations with continuous growth rates, leading to working with the natural logarithm. The unit ends with an exposure to logarithmic functions.

Unit 05 - Transformation of Functions
In this unit, students consider functions as a whole and understand how they can be transformed to fit the needs of a situation, which is an aspect of modeling with mathematics (MP4). Students make connections between representations as they translate, reflect, and apply scale factors to different types of functions. As the unit progresses, so too does the language students use to describe transformations with precision (MP6). The unit ends with students applying transformations to different functions to model a real world data set.

Unit 06 - Trigonometric Functions
In this unit, students are introduced to trigonometric functions. While they have studied a variety of function types with different key features previously, this is the first time students are asked to consider periodic functions, that is, functions whose output values repeat at regular intervals. Students first consider circular motion and learn to use right triangle trigonometry to identify the coordinates of a point on a circle. The unit circle is introduced, and students study the symmetry of its coordinates and reason about radian angles knowing a full circle has an angle of 2*pie*. The second half of this unit builds directly on the work of the previous unit by having students apply their knowledge of transformations to trigonometric functions and use these functions to model periodic situations.

Unit 07 - Transformation of Functions
In grade 7, students examined processes for collecting samples from a population and using information from the samples to estimate characteristics for the population. In this unit, students expand on this idea by exploring the normal distribution and applying their understanding of the distribution to provide estimates with a margin of error. The unit also examines experimental studies, observational studies, and surveys. For experimental studies, it examines methods for analyzing the data using a randomization distribution and modeling the data with normal distributions. The importance of random selection for gathering a sample for surveys and observational studies and the importance of random assignment in experimental studies is emphasized. The unit concludes with ways to analyze the results from the various study types. Data from surveys and observational studies using random samples are used to estimate population means and proportions with a margin of error.

Science Curriculum

The Next Generation Science Standards for K-12

The Next Generation Science Standards (NGSS) are a new set of K-12 science standards that were developed by states, for states. The NGSS identify scientific and engineering practices, crosscutting concepts, and core ideas in science that all K-12 students should master in order to prepare for success in college and 21st century careers.

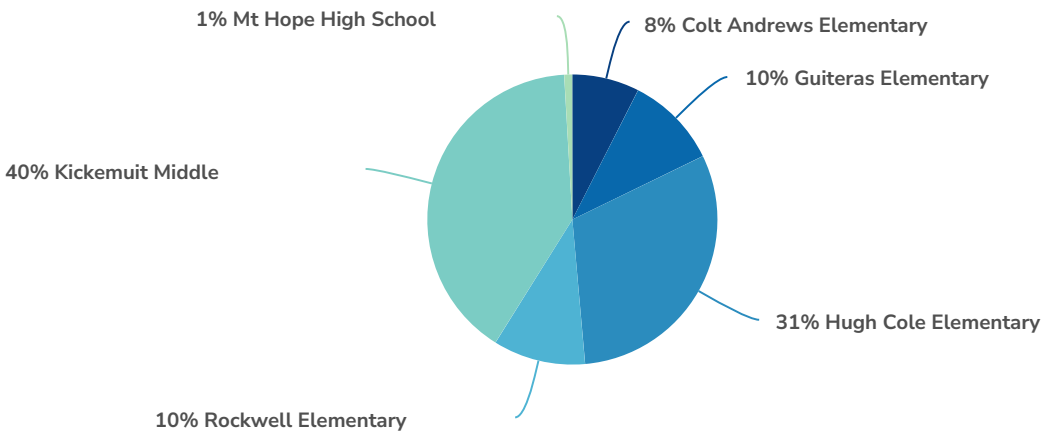
Report for Bristol Warren Facility Masterplan - Teacher Staff Survey

Response Counts

Completion Rate:	**55.1%**		
	Complete		59
	Partial		48

Totals: 107

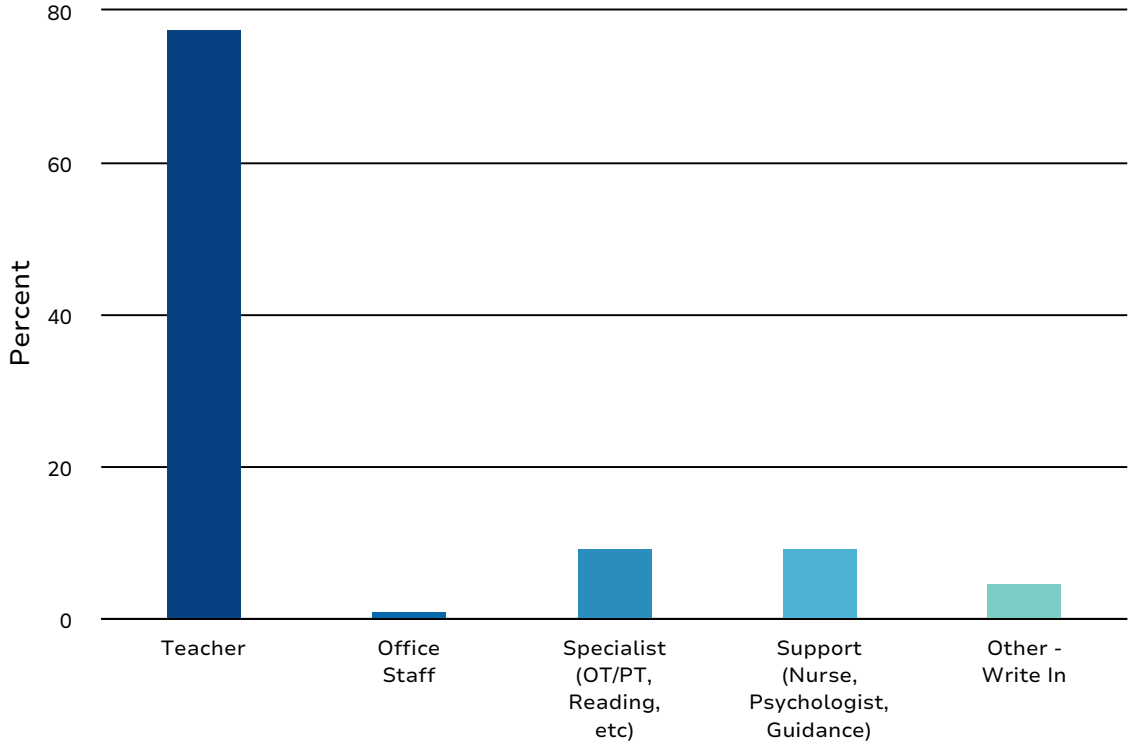
1. I am a teacher/specialist/staff at...(if multiple, choose one - subsequent questions will be based on this answer)



Value	Percent	Responses
Colt Andrews Elementary	7.5%	8
Guiteras Elementary	10.3%	11
Hugh Cole Elementary	30.8%	33
Rockwell Elementary	10.3%	11
Kickemuit Middle	40.2%	43
Mt Hope High School	0.9%	1

Totals: 107

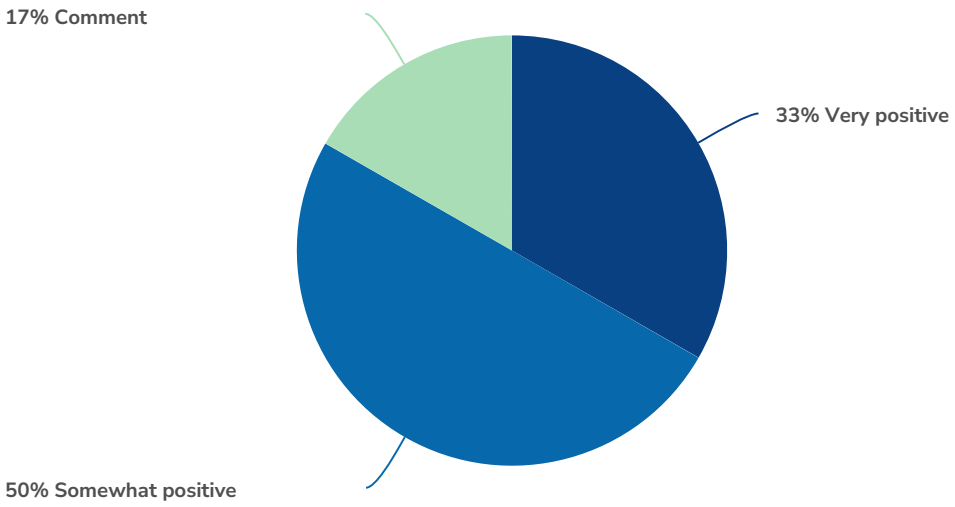
2. What is your role in the Bristol Warren Regional School District schools?



Value	Percent	Responses
Teacher	77.6%	83
Office Staff	0.9%	1
Specialist (OT/PT, Reading, etc)	9.3%	10
Support (Nurse, Psychologist, Guidance)	9.3%	10
Other - Write In	4.7%	5

Other - Write In	Count
Principal	2
And parent	1
District Coordinator	1
Special Eductator	1
Totals	5

3. How would you describe your overall impression of the Colt Andrews school facility?

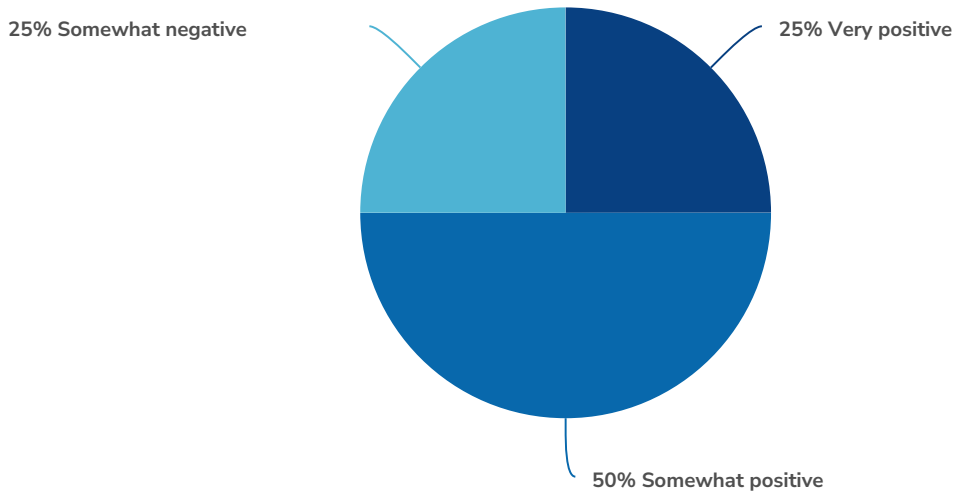


Value	Percent	Responses
Very positive	33.3%	2
Somewhat positive	50.0%	3
Comment	16.7%	1

Totals: 6

Comment	Count
Colorful and organized well for students but old and could always use some updating	1
Totals	1

4. How would you describe your overall impression of the Guiteras school facility?

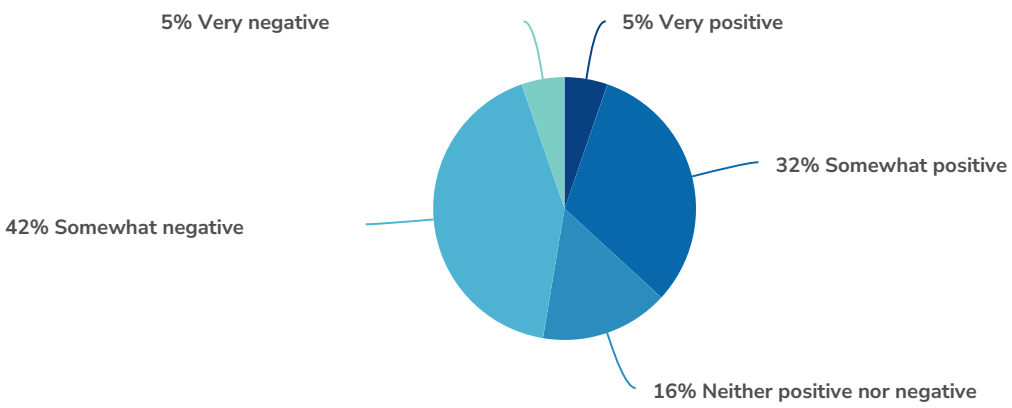


Value	Percent	Responses
Very positive	25.0%	1
Somewhat positive	50.0%	2
Somewhat negative	25.0%	1

Totals: 4

Comment	Count
Totals	0

5. How would you describe your overall impression of the Hugh Cole school facility?

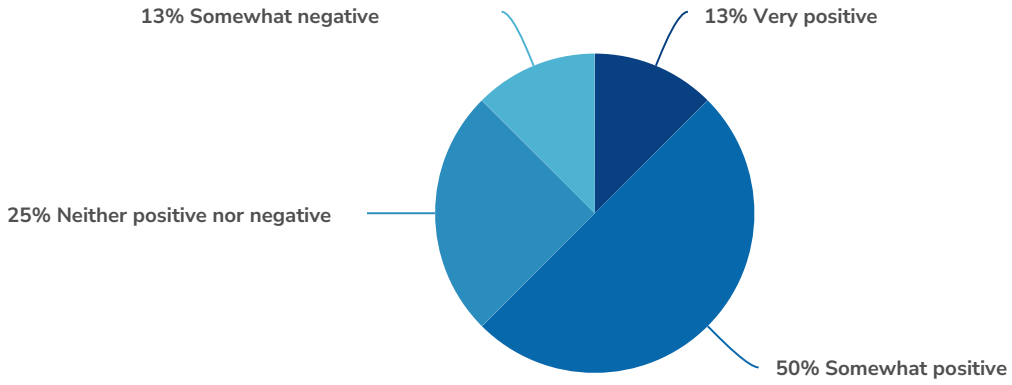


Value	Percent	Responses
Very positive	5.3%	1
Somewhat positive	31.6%	6
Neither positive nor negative	15.8%	3
Somewhat negative	42.1%	8
Very negative	5.3%	1

Totals: 19

Comment	Count
Totals	0

6. How would you describe your overall impression of the Rockwell school facility?

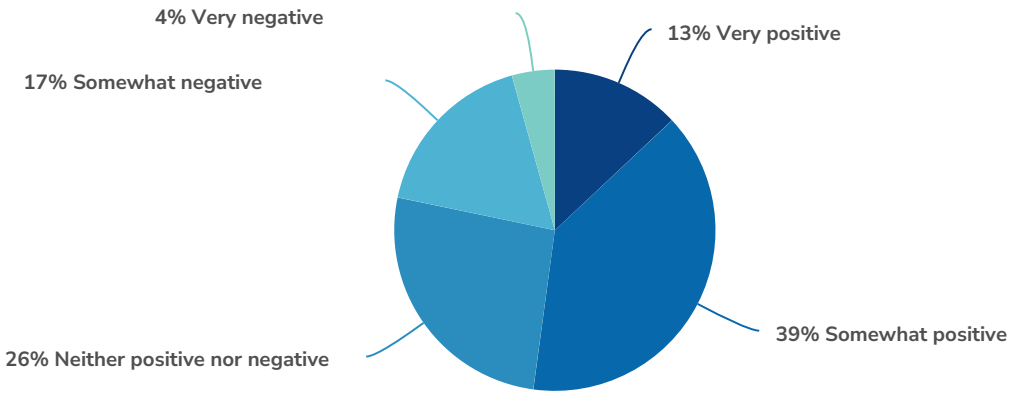


Value	Percent	Responses
Very positive	12.5%	1
Somewhat positive	50.0%	4
Neither positive nor negative	25.0%	2
Somewhat negative	12.5%	1

Totals: 8

Comment	Count
Totals	0

7. How would you describe your overall impression of the Kickemuit Middle School facility?

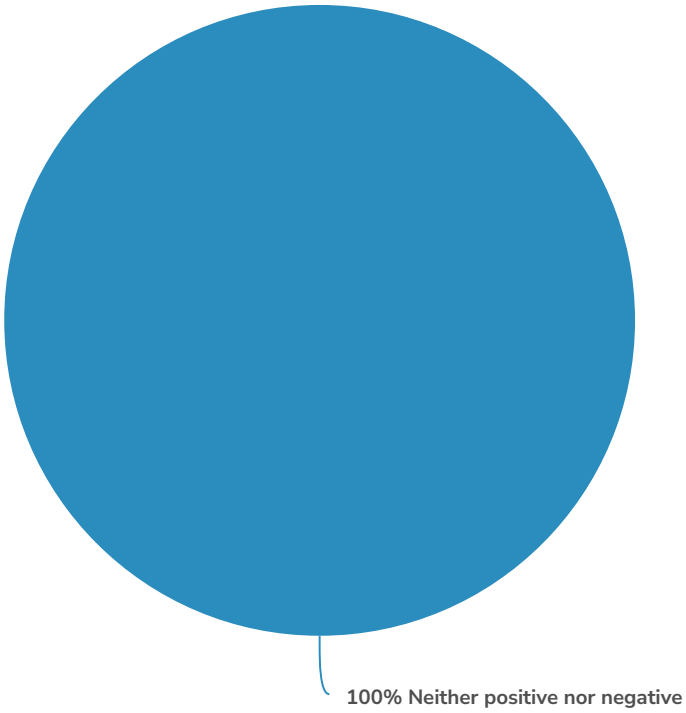


Value	Percent	Responses
Very positive	13.0%	3
Somewhat positive	39.1%	9
Neither positive nor negative	26.1%	6
Somewhat negative	17.4%	4
Very negative	4.3%	1

Totals: 23

Comment	Count
Totals	0

8. How would you describe your overall impression of the High School facility?



Value	Percent	Responses
Neither positive nor negative	100.0%	1
	Totals:	**1**

Comment	Count
Totals	0

9. Please rate your impression of the appearance and attractiveness (not functionality) of the following areas of Colt Andrews:

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms Count Row %	1 14.3%	4 57.1%	1 14.3%	1 14.3%	0 0.0%	0 0.0%	7
Resource Rooms Count Row %	0 0.0%	4 57.1%	1 14.3%	1 14.3%	0 0.0%	1 14.3%	7
Library Count Row %	0 0.0%	5 71.4%	1 14.3%	1 14.3%	0 0.0%	0 0.0%	7
Cafeteria Count Row %	0 0.0%	2 28.6%	2 28.6%	3 42.9%	0 0.0%	0 0.0%	7
Gym Count Row %	1 14.3%	2 28.6%	3 42.9%	1 14.3%	0 0.0%	0 0.0%	7
Art/Music classroom Count Row %	0 0.0%	3 42.9%	2 28.6%	2 28.6%	0 0.0%	0 0.0%	7
Specialists Rooms Count Row %	0 0.0%	3 42.9%	2 28.6%	2 28.6%	0 0.0%	0 0.0%	7
Nurse's Suite Count Row %	0 0.0%	4 57.1%	2 28.6%	1 14.3%	0 0.0%	0 0.0%	7
OT/PT Spaces Count Row %	0 0.0%	2 28.6%	3 42.9%	1 14.3%	0 0.0%	1 14.3%	7
Sensory Spaces Count Row %	0 0.0%	2 28.6%	1 14.3%	2 28.6%	1 14.3%	1 14.3%	7

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces							
Count	0	2	1	1	1	2	7
Row %	0.0%	28.6%	14.3%	14.3%	14.3%	28.6%	
Teacher Workroom							
Count	0	2	0	3	2	0	7
Row %	0.0%	28.6%	0.0%	42.9%	28.6%	0.0%	
Administration Spaces							
Count	0	2	1	3	1	0	7
Row %	0.0%	28.6%	14.3%	42.9%	14.3%	0.0%	
Entrance / Security Vestibule							
Count	0	2	0	3	2	0	7
Row %	0.0%	28.6%	0.0%	42.9%	28.6%	0.0%	
Outdoor play space							
Count	0	2	3	1	1	0	7
Row %	0.0%	28.6%	42.9%	14.3%	14.3%	0.0%	
Outdoor Learning							
Count	0	1	1	3	2	0	7
Row %	0.0%	14.3%	14.3%	42.9%	28.6%	0.0%	
Totals							
Total Responses							7

10. Please rate your impression of the appearance and attractiveness (not functionality) of the following areas of Guiteras:

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms							
Count	0	2	0	1	1	0	4
Row %	0.0%	50.0%	0.0%	25.0%	25.0%	0.0%	
Resource Rooms							
Count	0	2	0	1	1	0	4
Row %	0.0%	50.0%	0.0%	25.0%	25.0%	0.0%	
Library							
Count	1	1	0	2	0	0	4
Row %	25.0%	25.0%	0.0%	50.0%	0.0%	0.0%	
Cafeteria							
Count	1	1	0	0	2	0	4
Row %	25.0%	25.0%	0.0%	0.0%	50.0%	0.0%	
Gym							
Count	0	2	0	1	1	0	4
Row %	0.0%	50.0%	0.0%	25.0%	25.0%	0.0%	
Art/Music classroom							
Count	0	1	1	1	1	0	4
Row %	0.0%	25.0%	25.0%	25.0%	25.0%	0.0%	
Specialists Rooms							
Count	0	1	1	0	2	0	4
Row %	0.0%	25.0%	25.0%	0.0%	50.0%	0.0%	
Nurse's Suite							
Count	0	2	0	2	0	0	4
Row %	0.0%	50.0%	0.0%	50.0%	0.0%	0.0%	
OT/PT Spaces							
Count	0	1	0	1	2	0	4
Row %	0.0%	25.0%	0.0%	25.0%	50.0%	0.0%	
Sensory Spaces							
Count	1	0	0	0	3	0	4
Row %	25.0%	0.0%	0.0%	0.0%	75.0%	0.0%	

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces							
Count	0	1	0	1	2	0	4
Row %	0.0%	25.0%	0.0%	25.0%	50.0%	0.0%	
Teacher Workroom							
Count	0	1	0	0	3	0	4
Row %	0.0%	25.0%	0.0%	0.0%	75.0%	0.0%	
Administration Spaces							
Count	0	1	1	2	0	0	4
Row %	0.0%	25.0%	25.0%	50.0%	0.0%	0.0%	
Entrance / Security Vestibule							
Count	0	2	1	0	1	0	4
Row %	0.0%	50.0%	25.0%	0.0%	25.0%	0.0%	
Outdoor play space							
Count	1	0	1	2	0	0	4
Row %	25.0%	0.0%	25.0%	50.0%	0.0%	0.0%	
Outdoor Learning							
Count	1	1	1	1	0	0	4
Row %	25.0%	25.0%	25.0%	25.0%	0.0%	0.0%	
Totals							
Total Responses							4

11. Please rate your impression of the appearance and attractiveness (not functionality) of the following areas of Hugh Cole:

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms							
Count	1	4	5	7	2	0	19
Row %	5.3%	21.1%	26.3%	36.8%	10.5%	0.0%	
Resource Rooms							
Count	1	0	7	6	4	1	19
Row %	5.3%	0.0%	36.8%	31.6%	21.1%	5.3%	
Library							
Count	0	2	7	5	5	0	19
Row %	0.0%	10.5%	36.8%	26.3%	26.3%	0.0%	
Cafeteria							
Count	1	7	7	2	2	0	19
Row %	5.3%	36.8%	36.8%	10.5%	10.5%	0.0%	
Gym							
Count	0	1	6	9	3	0	19
Row %	0.0%	5.3%	31.6%	47.4%	15.8%	0.0%	
Art/Music classroom							
Count	0	0	7	8	4	0	19
Row %	0.0%	0.0%	36.8%	42.1%	21.1%	0.0%	
Specialists Rooms							
Count	0	1	7	3	7	0	18
Row %	0.0%	5.6%	38.9%	16.7%	38.9%	0.0%	
Nurse's Suite							
Count	0	3	7	6	2	0	18
Row %	0.0%	16.7%	38.9%	33.3%	11.1%	0.0%	
OT/PT Spaces							
Count	0	3	2	1	7	5	18
Row %	0.0%	16.7%	11.1%	5.6%	38.9%	27.8%	
Sensory Spaces							
Count	0	0	2	3	6	7	18
Row %	0.0%	0.0%	11.1%	16.7%	33.3%	38.9%	

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces							
Count	0	0	2	6	7	3	18
Row %	0.0%	0.0%	11.1%	33.3%	38.9%	16.7%	
Teacher Workroom							
Count	0	0	7	7	4	0	18
Row %	0.0%	0.0%	38.9%	38.9%	22.2%	0.0%	
Administration Spaces							
Count	0	2	12	2	1	1	18
Row %	0.0%	11.1%	66.7%	11.1%	5.6%	5.6%	
Entrance / Security Vestibule							
Count	0	4	9	4	1	0	18
Row %	0.0%	22.2%	50.0%	22.2%	5.6%	0.0%	
Outdoor play space							
Count	0	2	6	6	4	0	18
Row %	0.0%	11.1%	33.3%	33.3%	22.2%	0.0%	
Outdoor Learning							
Count	0	0	3	7	7	1	18
Row %	0.0%	0.0%	16.7%	38.9%	38.9%	5.6%	
Totals							
Total Responses							19

12. Please rate your impression of the appearance and attractiveness (not functionality) of the following areas of Rockwell:

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms Count Row %	0 0.0%	2 25.0%	6 75.0%	0 0.0%	0 0.0%	0 0.0%	8
Resource Rooms Count Row %	1 12.5%	0 0.0%	6 75.0%	0 0.0%	0 0.0%	1 12.5%	8
Library Count Row %	0 0.0%	1 12.5%	5 62.5%	2 25.0%	0 0.0%	0 0.0%	8
Cafeteria Count Row %	0 0.0%	1 12.5%	3 37.5%	3 37.5%	1 12.5%	0 0.0%	8
Gym Count Row %	0 0.0%	0 0.0%	6 85.7%	0 0.0%	1 14.3%	0 0.0%	7
Art/Music classroom Count Row %	0 0.0%	2 28.6%	3 42.9%	2 28.6%	0 0.0%	0 0.0%	7
Specialists Rooms Count Row %	0 0.0%	1 12.5%	2 25.0%	3 37.5%	1 12.5%	1 12.5%	8
Nurse's Suite Count Row %	1 12.5%	1 12.5%	4 50.0%	1 12.5%	1 12.5%	0 0.0%	8
OT/PT Spaces Count Row %	1 12.5%	0 0.0%	3 37.5%	3 37.5%	1 12.5%	0 0.0%	8
Sensory Spaces Count Row %	0 0.0%	1 12.5%	2 25.0%	2 25.0%	2 25.0%	1 12.5%	8

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces							
Count	0	0	1	2	3	1	7
Row %	0.0%	0.0%	14.3%	28.6%	42.9%	14.3%	
Teacher Workroom							
Count	0	0	1	4	3	0	8
Row %	0.0%	0.0%	12.5%	50.0%	37.5%	0.0%	
Administration Spaces							
Count	0	3	2	3	0	0	8
Row %	0.0%	37.5%	25.0%	37.5%	0.0%	0.0%	
Entrance / Security Vestibule							
Count	0	3	4	1	0	0	8
Row %	0.0%	37.5%	50.0%	12.5%	0.0%	0.0%	
Outdoor play space							
Count	0	0	4	2	2	0	8
Row %	0.0%	0.0%	50.0%	25.0%	25.0%	0.0%	
Outdoor Learning							
Count	0	0	0	3	4	1	8
Row %	0.0%	0.0%	0.0%	37.5%	50.0%	12.5%	
Totals							
Total Responses							8

13. Please rate your impression of the appearance and attractiveness (not functionality) of the following areas of Kickemuit Middle School:

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms							
Count	2	5	11	4	2	0	24
Row %	8.3%	20.8%	45.8%	16.7%	8.3%	0.0%	
Resource Rooms							
Count	1	2	15	2	2	2	24
Row %	4.2%	8.3%	62.5%	8.3%	8.3%	8.3%	
Library							
Count	2	5	13	4	0	0	24
Row %	8.3%	20.8%	54.2%	16.7%	0.0%	0.0%	
Cafeteria							
Count	1	4	14	4	1	0	24
Row %	4.2%	16.7%	58.3%	16.7%	4.2%	0.0%	
Gym							
Count	3	7	13	1	0	0	24
Row %	12.5%	29.2%	54.2%	4.2%	0.0%	0.0%	
Art/Music classroom							
Count	1	3	11	6	1	2	24
Row %	4.2%	12.5%	45.8%	25.0%	4.2%	8.3%	
Specialists Rooms							
Count	1	2	17	3	1	0	24
Row %	4.2%	8.3%	70.8%	12.5%	4.2%	0.0%	
Nurse's Suite							
Count	1	5	11	4	1	2	24
Row %	4.2%	20.8%	45.8%	16.7%	4.2%	8.3%	
OT/PT Spaces							
Count	1	0	8	3	1	11	24
Row %	4.2%	0.0%	33.3%	12.5%	4.2%	45.8%	
Sensory Spaces							
Count	1	0	7	5	1	10	24
Row %	4.2%	0.0%	29.2%	20.8%	4.2%	41.7%	

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces Count Row %	1 4.2%	0 0.0%	6 25.0%	4 16.7%	3 12.5%	10 41.7%	24
Teacher Workroom Count Row %	1 4.2%	0 0.0%	7 29.2%	8 33.3%	6 25.0%	2 8.3%	24
Administration Spaces Count Row %	1 4.2%	5 20.8%	11 45.8%	3 12.5%	2 8.3%	2 8.3%	24
Entrance / Security Vestibule Count Row %	2 8.3%	4 16.7%	10 41.7%	7 29.2%	1 4.2%	0 0.0%	24
Outdoor Recreation / Sports Fields Count Row %	2 8.3%	4 16.7%	12 50.0%	5 20.8%	1 4.2%	0 0.0%	24
Outdoor Learning Count Row %	2 8.3%	2 8.3%	4 16.7%	8 33.3%	6 25.0%	2 8.3%	24
Totals Total Responses							24

14. Please rate your impression of the appearance and attractiveness (not functionality) of the following areas of the High School:

	Great	Good	Average	Below average	Poor	Don't know	Responses
Totals							
Total Responses							0

15. Please rate your impression of the functionality of the following areas of Colt Andrews. Functionality includes suitability, comfort, and useability.

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms Count Row %	0 0.0%	2 28.6%	3 42.9%	2 28.6%	0 0.0%	0 0.0%	7
Resource Rooms Count Row %	0 0.0%	2 28.6%	2 28.6%	3 42.9%	0 0.0%	0 0.0%	7
Library Count Row %	0 0.0%	2 28.6%	4 57.1%	1 14.3%	0 0.0%	0 0.0%	7
Cafeteria Count Row %	0 0.0%	2 28.6%	1 14.3%	3 42.9%	1 14.3%	0 0.0%	7
Gym Count Row %	1 14.3%	2 28.6%	2 28.6%	2 28.6%	0 0.0%	0 0.0%	7
Art/Music classroom Count Row %	0 0.0%	2 28.6%	2 28.6%	3 42.9%	0 0.0%	0 0.0%	7
Specialists Rooms Count Row %	0 0.0%	2 28.6%	1 14.3%	4 57.1%	0 0.0%	0 0.0%	7
Nurse's Suite Count Row %	0 0.0%	2 28.6%	3 42.9%	1 14.3%	1 14.3%	0 0.0%	7
OT/PT Spaces Count Row %	0 0.0%	2 28.6%	2 28.6%	2 28.6%	0 0.0%	1 14.3%	7
Sensory Spaces Count Row %	0 0.0%	1 14.3%	2 28.6%	2 28.6%	1 14.3%	1 14.3%	7

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces							
Count	0	2	1	1	1	2	7
Row %	0.0%	28.6%	14.3%	14.3%	14.3%	28.6%	
Teacher Workroom							
Count	0	2	0	2	2	1	7
Row %	0.0%	28.6%	0.0%	28.6%	28.6%	14.3%	
Administration Spaces							
Count	0	2	0	3	2	0	7
Row %	0.0%	28.6%	0.0%	42.9%	28.6%	0.0%	
Totals							
Total Responses							7

16. Please rate your impression of the functionality of the following areas of Guiteras. Functionality includes suitability, comfort, and useability.

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms Count Row %	0 0.0%	0 0.0%	2 50.0%	1 25.0%	1 25.0%	0 0.0%	4
Resource Rooms Count Row %	0 0.0%	0 0.0%	1 25.0%	2 50.0%	1 25.0%	0 0.0%	4
Library Count Row %	1 25.0%	1 25.0%	0 0.0%	1 25.0%	1 25.0%	0 0.0%	4
Cafeteria Count Row %	1 25.0%	1 25.0%	0 0.0%	0 0.0%	2 50.0%	0 0.0%	4
Gym Count Row %	0 0.0%	1 25.0%	1 25.0%	2 50.0%	0 0.0%	0 0.0%	4
Art/Music classroom Count Row %	0 0.0%	0 0.0%	2 50.0%	1 25.0%	1 25.0%	0 0.0%	4
Specialists Rooms Count Row %	0 0.0%	0 0.0%	1 25.0%	2 50.0%	1 25.0%	0 0.0%	4
Nurse's Suite Count Row %	0 0.0%	2 50.0%	0 0.0%	1 25.0%	1 25.0%	0 0.0%	4
OT/PT Spaces Count Row %	0 0.0%	0 0.0%	1 25.0%	0 0.0%	3 75.0%	0 0.0%	4
Sensory Spaces Count Row %	0 0.0%	1 25.0%	0 0.0%	2 50.0%	1 25.0%	0 0.0%	4

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces							
Count	0	0	1	1	2	0	4
Row %	0.0%	0.0%	25.0%	25.0%	50.0%	0.0%	
Teacher Workroom							
Count	0	0	1	1	2	0	4
Row %	0.0%	0.0%	25.0%	25.0%	50.0%	0.0%	
Administration Spaces							
Count	0	1	2	0	1	0	4
Row %	0.0%	25.0%	50.0%	0.0%	25.0%	0.0%	
Totals							
Total Responses							4

17. Please rate your impression of the functionality of the following areas of Hugh Cole. Functionality includes suitability, comfort, and useability.

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms							
Count	0	1	6	8	3	0	18
Row %	0.0%	5.6%	33.3%	44.4%	16.7%	0.0%	
Resource Rooms							
Count	0	0	6	3	8	1	18
Row %	0.0%	0.0%	33.3%	16.7%	44.4%	5.6%	
Library							
Count	0	0	6	9	3	0	18
Row %	0.0%	0.0%	33.3%	50.0%	16.7%	0.0%	
Cafeteria							
Count	0	4	8	4	1	0	17
Row %	0.0%	23.5%	47.1%	23.5%	5.9%	0.0%	
Gym							
Count	0	2	5	6	5	0	18
Row %	0.0%	11.1%	27.8%	33.3%	27.8%	0.0%	
Art/Music classroom							
Count	0	1	4	7	5	0	17
Row %	0.0%	5.9%	23.5%	41.2%	29.4%	0.0%	
Specialists Rooms							
Count	0	0	6	6	5	1	18
Row %	0.0%	0.0%	33.3%	33.3%	27.8%	5.6%	
Nurse's Suite							
Count	0	1	10	3	3	0	17
Row %	0.0%	5.9%	58.8%	17.6%	17.6%	0.0%	
OT/PT Spaces							
Count	0	0	5	4	5	4	18
Row %	0.0%	0.0%	27.8%	22.2%	27.8%	22.2%	
Sensory Spaces							
Count	0	0	1	6	6	5	18
Row %	0.0%	0.0%	5.6%	33.3%	33.3%	27.8%	

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces Count Row %	0 0.0%	0 0.0%	1 5.9%	6 35.3%	8 47.1%	2 11.8%	17
Teacher Workroom Count Row %	0 0.0%	0 0.0%	5 27.8%	6 33.3%	7 38.9%	0 0.0%	18
Administration Spaces Count Row %	0 0.0%	1 5.6%	10 55.6%	2 11.1%	4 22.2%	1 5.6%	18
Totals Total Responses							18

18. Please rate your impression of the functionality of the following areas of Rockwell. Functionality includes suitability, comfort, and useability.

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms Count Row %	0 0.0%	1 12.5%	4 50.0%	3 37.5%	0 0.0%	0 0.0%	8
Resource Rooms Count Row %	0 0.0%	0 0.0%	5 62.5%	1 12.5%	0 0.0%	2 25.0%	8
Library Count Row %	1 12.5%	0 0.0%	5 62.5%	2 25.0%	0 0.0%	0 0.0%	8
Cafeteria Count Row %	0 0.0%	0 0.0%	2 25.0%	5 62.5%	1 12.5%	0 0.0%	8
Gym Count Row %	0 0.0%	0 0.0%	3 37.5%	2 25.0%	3 37.5%	0 0.0%	8
Art/Music classroom Count Row %	0 0.0%	0 0.0%	4 50.0%	4 50.0%	0 0.0%	0 0.0%	8
Specialists Rooms Count Row %	0 0.0%	0 0.0%	4 50.0%	1 12.5%	1 12.5%	2 25.0%	8
Nurse's Suite Count Row %	0 0.0%	3 37.5%	3 37.5%	2 25.0%	0 0.0%	0 0.0%	8
OT/PT Spaces Count Row %	0 0.0%	0 0.0%	3 37.5%	1 12.5%	3 37.5%	1 12.5%	8
Sensory Spaces Count Row %	0 0.0%	0 0.0%	3 37.5%	1 12.5%	3 37.5%	1 12.5%	8

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces Count Row %	0 0.0%	0 0.0%	2 25.0%	1 12.5%	4 50.0%	1 12.5%	8
Teacher Workroom Count Row %	0 0.0%	1 12.5%	1 12.5%	3 37.5%	3 37.5%	0 0.0%	8
Administration Spaces Count Row %	0 0.0%	2 25.0%	4 50.0%	2 25.0%	0 0.0%	0 0.0%	8
Totals Total Responses							8

19. Please rate your impression of the functionality of the following areas of the Kickemuit Middle School. Functionality includes suitability, comfort, and useability.

	Great	Good	Average	Below average	Poor	Don't know	Responses
Core classrooms							
Count	1	1	11	7	3	1	24
Row %	4.2%	4.2%	45.8%	29.2%	12.5%	4.2%	
Resource Rooms							
Count	1	1	10	5	3	4	24
Row %	4.2%	4.2%	41.7%	20.8%	12.5%	16.7%	
Library							
Count	2	2	13	5	1	1	24
Row %	8.3%	8.3%	54.2%	20.8%	4.2%	4.2%	
Cafeteria							
Count	1	0	14	7	0	2	24
Row %	4.2%	0.0%	58.3%	29.2%	0.0%	8.3%	
Gym							
Count	2	2	16	2	0	2	24
Row %	8.3%	8.3%	66.7%	8.3%	0.0%	8.3%	
Art/Music classroom							
Count	1	1	15	2	2	3	24
Row %	4.2%	4.2%	62.5%	8.3%	8.3%	12.5%	
Specialists Rooms							
Count	1	0	14	5	2	2	24
Row %	4.2%	0.0%	58.3%	20.8%	8.3%	8.3%	
Nurse's Suite							
Count	1	1	14	4	1	3	24
Row %	4.2%	4.2%	58.3%	16.7%	4.2%	12.5%	
OT/PT Spaces							
Count	1	0	6	5	1	11	24
Row %	4.2%	0.0%	25.0%	20.8%	4.2%	45.8%	
Sensory Spaces							
Count	1	0	5	6	1	11	24
Row %	4.2%	0.0%	20.8%	25.0%	4.2%	45.8%	

	Great	Good	Average	Below average	Poor	Don't know	Responses
Breakout Spaces Count Row %	1 4.3%	0 0.0%	4 17.4%	7 30.4%	3 13.0%	8 34.8%	23
Teacher Workroom Count Row %	1 4.2%	0 0.0%	7 29.2%	9 37.5%	6 25.0%	1 4.2%	24
Administration Spaces Count Row %	1 4.2%	3 12.5%	8 33.3%	5 20.8%	2 8.3%	5 20.8%	24
Totals Total Responses							24

20. Please rate your impression of the functionality of the following areas of the High School. Functionality includes suitability, comfort, and useability.

	Great	Good	Average	Below average	Poor	Don't know	Responses
Totals							
Total Responses							0

21. What are your favorite spaces at the Colt Andrews Elementary School?

ResponseID	Response
86	The historical architecture of the buildings. The Colt Auditorium
87	The auditorium
91	Library Gym
93	Colt auditorium
94	Love the auditorium! Classically beautiful!
104	My classroom, the art room, Spence's that are well organized

22. What are your favorite spaces at Guiteras Elementary School?

ResponseID	Response
33	Rooms with a view of the harbor
37	There aren't any! The building is old and musty. It has been leaking since I've been working in the building. I've been putting in schooldude requests since 2012 for leaks.
106	Library, grounds for outdoor learning.

23. What are your favorite spaces at the Hugh Cole Elementary School?

ResponseID	Response
2	Most kindergarten classrooms have what they need except for one without bathroom
3	My classroom
5	Outdoor tables, sensory path
6	The garden area
8	Th walls of windows to let in natural light are wonderful. The sprawling building is difficult to deal with when working with students on both buildings...long walk to get to the old part of the building though.
9	The space outside my classroom door where I bring my students to Thrive Outside.
11	Courtyard/garden
12	My classroom
18	My classroom.
20	I don't have a favorite space unfortunately.
22	Don't have any as they are poor
25	The courtyard. But it is hard to access.
29	Classrooms
41	Hallway with windows connecting school(s)
43	Hallway with sensory path

24. What are your favorite spaces at the Rockwell Elementary School?

ResponseID	Response
96	Although below avg, my office provides the only area I can use to have confidentiality with a student/ parent
97	Room 3 Library
99	Don't have one
100	Kindergarten classrooms
101	The library is a nice size.
103	It's a very tight school space wise. Classrooms are spacious but uncomfortable at times do to h/c
107	My classroom

25. What are your favorite spaces at the Kickemuit Middle School?

ResponseID	Response
44	Auditorium
48	Don't have one
50	My classroom
52	The auditorium
55	Auditorium and wellness center
56	My classroom
62	KMS Library; KMS Library Work Room; KMS Librarian Office; "Side Yard" (green space between the building and neighbor's tree line)
66	This is a tricky question. I can't say I have one.
67	Probably my classroom because it is "my" space
74	Wellness center
75	My classroom because I can decorate it as I want. The room itself is dull, but I add bright colors and bulletin boards to make it a more creative and welcoming place. If not, the room would be "boring" and dull.
76	N/A
78	My class room.
79	Library
81	Rooms with flexible seating options that allow for greater technology use... though we use less of it now than we did before COVID
83	I like my own classroom, because I have set it up to be the best it can be. Even my room has major problems -- the dividing wall is flimsy and broken. The windows to not open wide enough (fire safety problem). The door looks on the outside and has a plan glass window in it (intruder safety hazard. To add to all of this, the rooms are pink. It's really ugly in this school.
84	classroom
85	I don't believe I have a favorite space at KMS. The school, in general, feels worn.
89	New addition classrooms and science classrooms with sinks.

26. What are your favorite spaces at the High School?

ResponseID	Response

27. What would you most like to improve at the Colt Andrews building and site?

ResponseID	Response
86	Provide more outdoor learning spaces and meeting rooms. Improve the heating/cooling systems.
87	Entrance Crossing the street Barriers to block road off
90	Walls need to be painted, ac through out the school and heat
91	Larger classrooms and close street between the two schools.
93	Classrooms Add air conditioning Media center in library Add multipurpose room Add meeting space Make outdoors safer Make entrances safer Remodel admin offices Repair windows Move teachers out of basement
94	Storage and space
104	The walls need painting. Most classroom were only painted w primer.

28. What would you most like to improve at the Guiteras school building and site?

ResponseID	Response
33	Leak free ceiling and windows
37	I would like a new building.
105	Classrooms
106	Storage for student coat & bags and teacher materials. A desirable teacher's room

29. What would you most like to improve at the Hugh Cole school building and site?

ResponseID	Response
2	People are working in closets , school is two schools in one, far walk to most parts of schools
3	The heating and air conditioning system so we can regulate it ourselves.
5	Old classrooms on the grades 3-5 wings.
6	Larger area to support classroom needs. Better outdoor space.
8	The teacher bathrooms in the old side are too small! And toilets are too low to the ground..the youngest students have to walk the furthest to gym, library,
9	outdoor space / classroom
11	The old section of the building needs windows that actually open up and down not 45 degrees. The heating system is archaic giving heat on a 65 degree day when you don't need it. A/C would be nice in the older side of the building.staff wear sweaters on the newer side where there is AC while staff and students are dealing with 80 degree temps on the older side. The old side of the building also needs an electrical upgrade
12	Ventilation
13	Resource spaces/areas
18	The office is not attractive. The gym and music room are very outdated.
20	More up to date rooms
21	More available office space for meetings and pulling students.
22	The classrooms
25	Ventilation in the gym grade 3-5 wing
29	AC all over
41	Classroom temperature control (floors get wet and slippery from humidity), distances for resources
43	Upgrade the old half of the buildong

30. What would you most like to improve at the Rockwell school building and site?

ResponseID	Response
96	More Inside Space available for teaching, learning and mental health services
97	Parking HVAC AC More classrooms for smaller class sizes! New, comfortable furniture!
99	Better outside play are for students, bigger gym and updated, ac for building and better parking
100	The whole building needs to be freshened up
101	Classrooms are not large enough for the amount of students maxed on our rosters. Classrooms also need A/C. They reach unbearable degrees up to 80 in warm months. This makes learning and teaching ineffective. The play yard is a giant dust bowl, there is dirt constantly blowing into kids' eyes, noses and classroom windows literally covering windowsills, counters and materials inside with filth! The ground leveling and drainage on play yard is horrendous. We are left with a giant pond after a short rainfall leaving the playground inaccessible. Parking is very limited and always a problem. Teachers and staff need designated parking signage. The traffic flow is unsafe for children as parents constantly drive down the side streets at drop off/pick up time, even though they are asked not to.
102	We need air conditioning
103	Better heating and air conditioning. Air quality is terrible
107	Locker space for all students Storage space in each classroom

31. What would you most like to improve at the Kickemuit Middle School building and site?

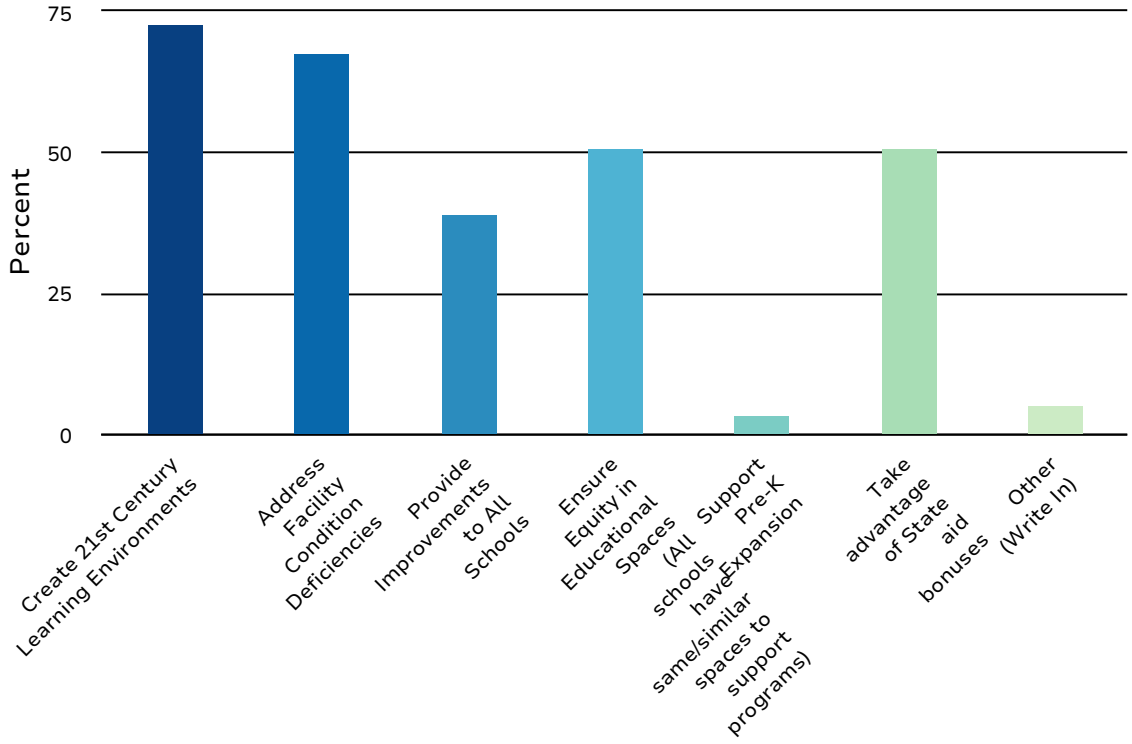
ResponseID	Response
44	The security within classrooms. If one door is open an intruder could go through the side interior doors and to many classrooms.
48	Brighten up for building... old and droopy Fix roof leaks
50	Strategic arrangements of teams and classrooms
52	Removing the mold. Replacing the tiles that are moldy. Placing air conditioning in each room, these rooms are extremely in for students and teachers.
55	Empty rooms that are not being utilized or are not up to date. Example: old home ec room
56	Bathrooms
62	-The inner courtyard: what is going on with that space? I've hear there are rats in there and it's not safe to be used. -KMS Library: I am the teacher-librarian and I have a vision and ideas; I'd love to work together. -Side Yard: has so much potential - is there a way to use the side door to take classes in/out? If I walk the class to the "front door" to access it takes 8 minutes to go from the Library to the front door - that 16 minutes of class "en route" and only inside the building.
66	The heating and cooling system. It is either way too hot or too cold. Never comfortable.
67	The efficiency of the school. Heat blasts in rooms and can't be adjusted. Other rooms are freezing. Air scrubbers are working overtime
69	Size of classrooms, hallways, lockers
72	outdoor spaces
75	I would like to increase the use of color and engaging displays. I also would like to increase the security of the school, especially between classrooms. We have doors that connect the classrooms, most of which cannot be locked. Also, the ceiling leaks and some of the tiles have mold or at least mildew.
76	Severe Special Education Program and Resources
77	Gym/ cafeteria

ResponseID	Response
78	Have the heat be adjustable in each classroom as now it is not despite what we are told. Fix the roof as it leaks into classrooms, labs and hallways. Get rid of the mold in the building as it is severe upstairs due to roof leaking and downstairs due to backed up sewer line
79	Heating and AC is outdated. We cannot adjust either in classrooms. All classrooms should have AC The ability to open classrooms like we used to to accommodate groups of large students.
83	If I had to choose one thing it would be the colors. The lockers are maroon, the walls are purple, and the classrooms are pink. It's a headache masquerading as a school. If I could choose more than one thing, I'd replace all of the ancient broken desks and chairs. And also I'd install real walls between the rooms instead of sagging, ripped, (pink), folding walls that we never fold back that cannot be repaired because the hardware doesn't exist anymore. There are so many chips and cracks and breaks in the pieces of this building. I truly feel that kids feel special when they are in lovely spaces. KMS is the definition of a space that is the antithesis of lovely. Also getting rid of the mold would be good.
84	Bathrooms
85	The most pressing issue is the leaks in the roof. This has resulted in ceiling tiles needing to be replaced, holes in the ceilings, and water dripping onto the floor. There must be a mold issue with the perpetual dampness.
89	Open meeting spaces

32. What would you most like to improve at the High School building and site?

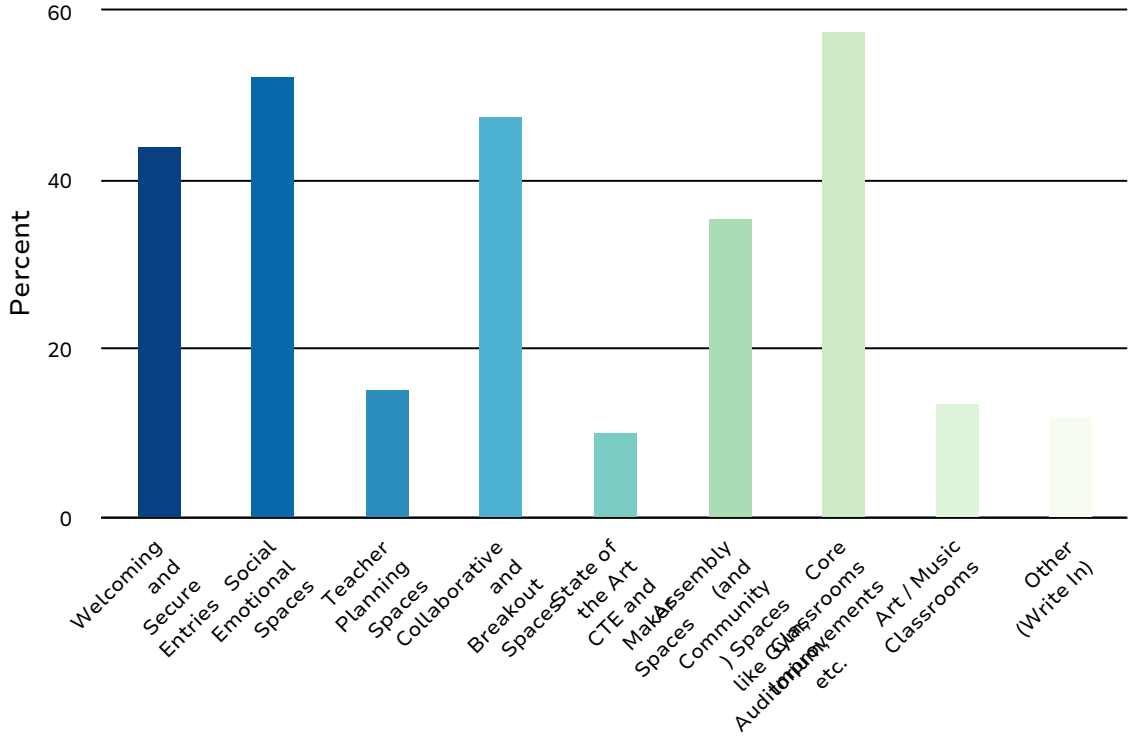
ResponseID	Response

33. What 3 priorities would you want to make sure the masterplanning addresses? (Multiple priorities will be considered - this is intended to gather feedback about your priorities)



Value	Percent	Responses
Create 21st Century Learning Environments	72.9%	43
Address Facility Condition Deficiencies	67.8%	40
Provide Improvements to All Schools	39.0%	23
Ensure Equity in Educational Spaces (All schools have same/similar spaces to support programs)	50.8%	30
Support Pre-K Expansion	3.4%	2
Take advantage of State aid bonuses	50.8%	30
Other (Write In)	5.1%	3

34. What 3 types of educational spaces should be prioritized in the planning?



Value	Percent	Responses
Welcoming and Secure Entries	44.1%	26
Social Emotional Spaces	52.5%	31
Teacher Planning Spaces	15.3%	9
Collaborative and Breakout Spaces	47.5%	28
State of the Art CTE and Maker Spaces	10.2%	6
Assembly (and Community) Spaces like Gym, Auditorium, etc.	35.6%	21
Core Classrooms Improvements	57.6%	34
Art / Music Classrooms	13.6%	8
Other (Write In)	11.9%	7

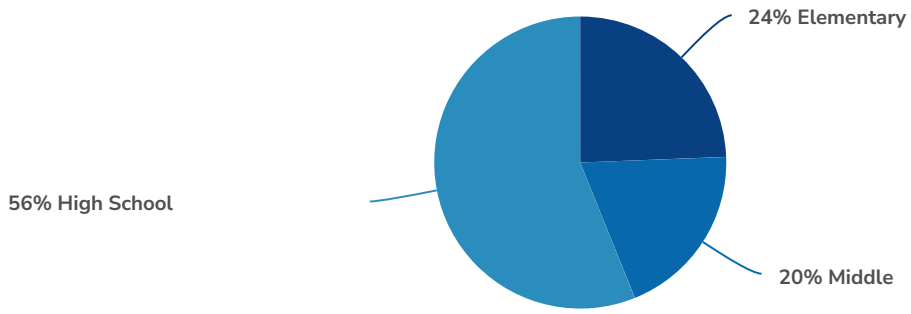
35. Are there other educational priorities that should be integrated into the planning?

ResponseID	Response
2	Room in classrooms for intervention services, making the school "one school" instead two different worlds, utilizing space effectively- some spaces are larger better setup than others
3	Yes more help in classrooms
8	The heating and ac is horrible. Too cole or too hot..windows dont open enough
12	Functioning technology
18	Spaces for classrooms to go when they need to evacuate. Therapeutic spaces for students in crisis.
29	Outdoor classrooms
37	Space for educational support teachers to use that are bigger than 6 ft by 14 ft.
41	Teacher opinion and feedback
44	More options for trades
50	Ensuring that humans are present to monitor these spaces. Why have clean, fancy spaces if there are no adults to monitor them?
52	We need a home economics class.
56	Teacher planning space and lounge
62	EVery time there is a school shooting or a lockdown drill, student say things like "we're on the second floor, if this was real we would all be dead." After Uvalde students were very upset about being told to do the lockdown drill. Can each second floor room have a window breaking tool, a moving blanket and an emergency ladder in case we get trapped and have to evacuate ourselves through a window? Or if not, can this be addressed in some way with second floor teachers and students?
66	Possibly state of the art teacher technology that would eliminate the use of the TV to project material to students.
67	I believe comfortable learning spaces are important for optimal learning. Therefore I would like to see classroom comfort addressed.

ResponseID	Response
75	I like the idea of collaborative spaces that teachers can use with their classes, outside of their own rooms and regular desks. It would provide more opportunities for open collaboration, and would mirror what some companies are investing in today with their own facilities.
76	Severe Special Ed needs such as routine and bath rooming should be considered when making incorporated schedules for entire school.
78	None I can think of
83	The wifi often does not work when it rains. Is there a wiring problem? Really, replacing the folding walls is important -- it is distracting to hear the class next to ours because there are literally open spaces between the rooms. Also, the set up of KMS is a safety and security nightmare. There is a strange combination of being trapped in the building if there is a fire (can't get out the windows, also can't break them to get out), plus being sitting ducks if there is an intruder -- break teh glass in the classroom door, reach through to open it, and you're in the room. Plus, with the folding walls, all the rooms connect through the rooms and not just the hallway, so anyone could avoid cameras and run rampant in all the classrooms without once going into the hall. It's a mess. And, as I mentioned before, to cap it all off, it's pink.
85	The classrooms are very traditional, not allowing for easy transitions to group work, reading areas, and storage!
86	Improve for technology
87	More build in flexible learning areas Outdoor learning spaces Central air in grades 1 and 3
89	School safety, functional dynamic learning places.
90	Safety
91	Security at the schools.
93	Safety concerns with having two schools
97	More classrooms!!!
101	Specialist rooms are the size of closets! They need to be given adequate, comfortable spacing to work with students.
103	Update to all interior doors that are delaminating causing splinter hazards. Secure locks for outer doors and new furniture in all classrooms...including bookcases

ResponseID	Response
106	New designs for classroom layouts to include various comfort & functional furniture
107	Updated classrooms -new furniture etc Space for all students (storage) Classroom storage

36. If the district were to build a new/replacement facility - what grade levels would you prioritize?



Value	Percent	Responses
Elementary	24.4%	10
Middle	19.5%	8
High School	56.1%	23

Totals: 41

37. How would you prioritize funding for capital improvements by grade level?

	Elementary Schools	Middle School	High School	Responses
Priority 1 Count Row %	 24 40.7%	 8 13.6%	 27 45.8%	 59
Priority 2 Count Row %	 25 42.4%	 11 18.6%	 23 39.0%	 59
Priority 3 Count Row %	 27 45.8%	 21 35.6%	 11 18.6%	 59
Totals Total Responses				 59

38. What else would you like the planning and leadership team to know as we continue the planning process?

ResponseID	Response
2	Middle school has lots of space and new auditorium. Elementary has no meeting space like an auditorium. Bathrooms are so old at Hugh Cole—
3	More bathrooms in lower level classrooms
8	Please don't spend all the money on the high school. Th e old elementary buildings need to be looked at.
11	The older side of Hugh Cole School is 50 years old. The older side of the building definitely needs to be upgraded and get a facelift. The bathrooms need to be gutted and redone.
12	Please check the ceilings for mold
18	We need a community partnership space for families in our community to get help for mental health, food security, housing security, etc...
37	Please think about new elementary schools. Thye have been repaired and have been a problem almost immediately after the repairs.
41	Small rooms for behavioral students to go/be brought to
44	We need spaces for programs for students with behavior disorders, alternative learning programs, etc
50	Thank you for asking for input from educators. While buildings are important, it would be nice for the powers at be to consider supporting the educators who work in them and hiring more capable adults to monitor the learning spaces.
52	We need to remove moldy ceiling tiles. We need air conditioners
67	Equity is important!
75	I think the classroom in the elementary schools are larges in size then middle and high school, which is why I place more importance of those schools. I am not sure what the conditions are like in the elementary and high schools, but I know they are not up to date in the middle school. Aside from leaking ceilings and molding ceiling tiles, the school appearance is very outdated. I would like to see emphasis placed on making a more inclusive and creative space. For example, the paintings in the cafeteria are problematic and we do not have safe spaces for the LGBTQ students, or any open spaces for specialists (coding, Stem, etc). Everyone is pretty much isolated to their own rooms.

ResponseID	Response
78	Many buildings in the district need improvements as they have been neglected for so long. Start with the worse one and work backwards
83	That the way a place looks affects how the people in it function. If the school is ugly, old, damaged, and ugly, then the kids will not feel special that they are in that building. I believe that the high school will get most or all of the funding, and the middle school will not be repaired or updated. This makes the staff and kids here feel left out. I hope that I am proved wrong.
84	new bathrrom
85	Aside from looking at the buildings in general, please address things like AC throughout the middle school and classroom improvements both practical and for safety.
87	Ample parking for staff
89	Please involve teachers in decision making.
91	Student security and safety. Colt side entrances have no security vestibules.
93	Insufficient staff parking
96	This process needs to be fair and equitable across all grade levels.
97	Thank you!
101	Classrooms/cafeteria-gym desperately need to be equipped with air conditioning! If class sizes remain so large, then classrooms need to be able to accommodate that!
104	Many of us are parents in the district too so we would be assets at seeing the big picture.
105	Hugh Cole paved settings are shameful and accidents just waiting to happen. Window glare, more electrical outlets, storage, enough space for large class sizes to have room for desks/tables and also rug space, sinks and comfortable climates (a/c and heat) need to be addressed at all elem schools
106	Even though the HS is the priority building to be replaced with hope to gain CTE programs to bring in more students, the elementary buildings need some modernization within the current walls.
107	Thank you for any and all you can do to support our schools

12: PLANNING ACTIVITIES

INCLUSIONS:

- Statement on Planning Activities
- Bristol Warren Strategic Plan
- Local Comprehensive Plans
  - Bristol Comprehensive Plan
  - Bristol Community Resilience Building
  - Warren Comprehensive Plan
- Site Assessment

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

February 15, 2023

Mario Carreno, ALEP
Chief Operating Officer
School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, RI 02903

Statement on Planning Activities

The Bristol Warren Regional School District has plans to revitalize their schools that reflect that of a 21st century learning experience. Utilizing the information in the Facilities Conditions Assessment Report and the Jacobs Report, BWRSD plans to revitalize facilities throughout the district.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

22-27 Strategic Plan

Presentation to School Committee
April 25, 2022

Ana C. Riley, Superintendent of Schools

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Our strategic planning framework aligns our mission with our day-to-day work.

Strategic Planning Framework



Definitions

Mission: *Long term district aspirations*

Theory of Action: *Fundamental belief around what will lead to long term success in the district*

Priorities: *Broad areas of work that are key levers for district success*

Measurable Goals: *Specific, measurable targets related to district priorities*

Initiatives: *Specific projects related to priorities that help to achieve measurable goals*

Action Steps: *An articulation of what steps need to occur, by when and by whom*

BWRSD's Strategic Planning Process

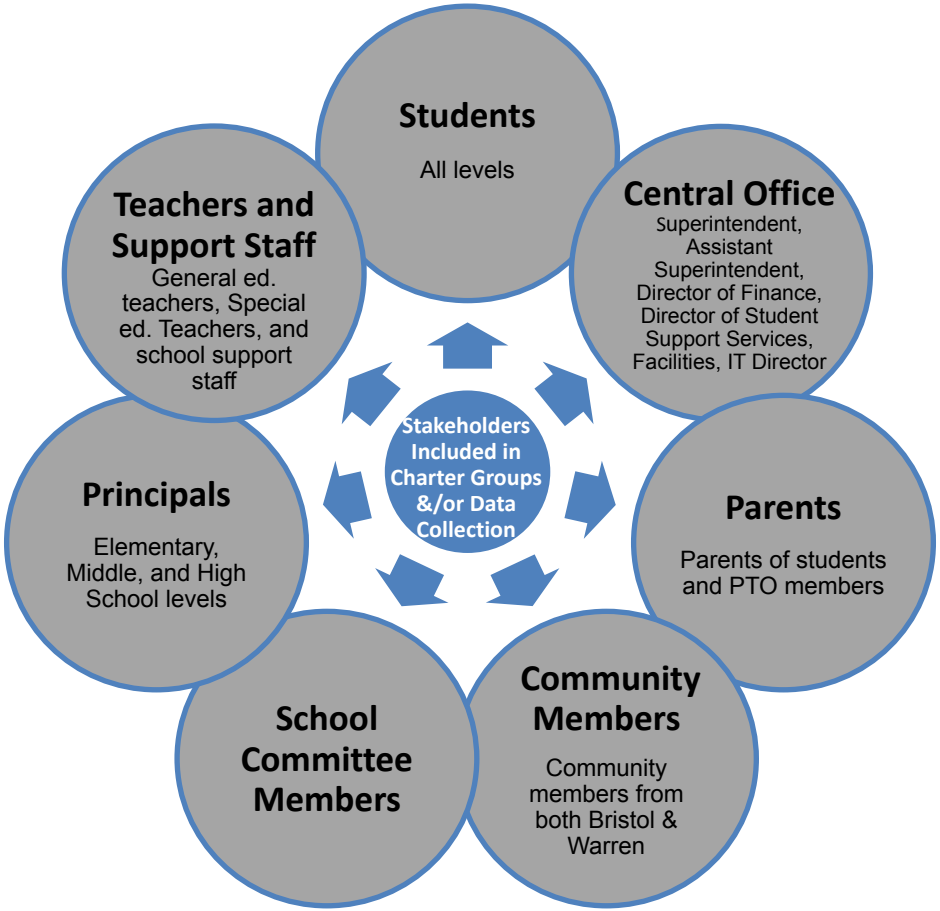
BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Stakeholders in the district were selected to form the Strategic Planning Charter Committee

Strategic Plan Overview Committee: Ana Riley (Executive Sponsor), Marjorie McBride (School Committee Liaison), Kathryn Brown (Project Manager)				
Climate & Culture	**Teaching & Learning**	**Professional Learning**	**Career & Technical Education**	**Communication**
Brenna Toland Carly Reich	Diane Sanna Nicky Piper	Deborah DiBiase Erin Schofield	Nicole Lyons Tara Thibaudeau	Miranda Carpenter Sarah Bullard

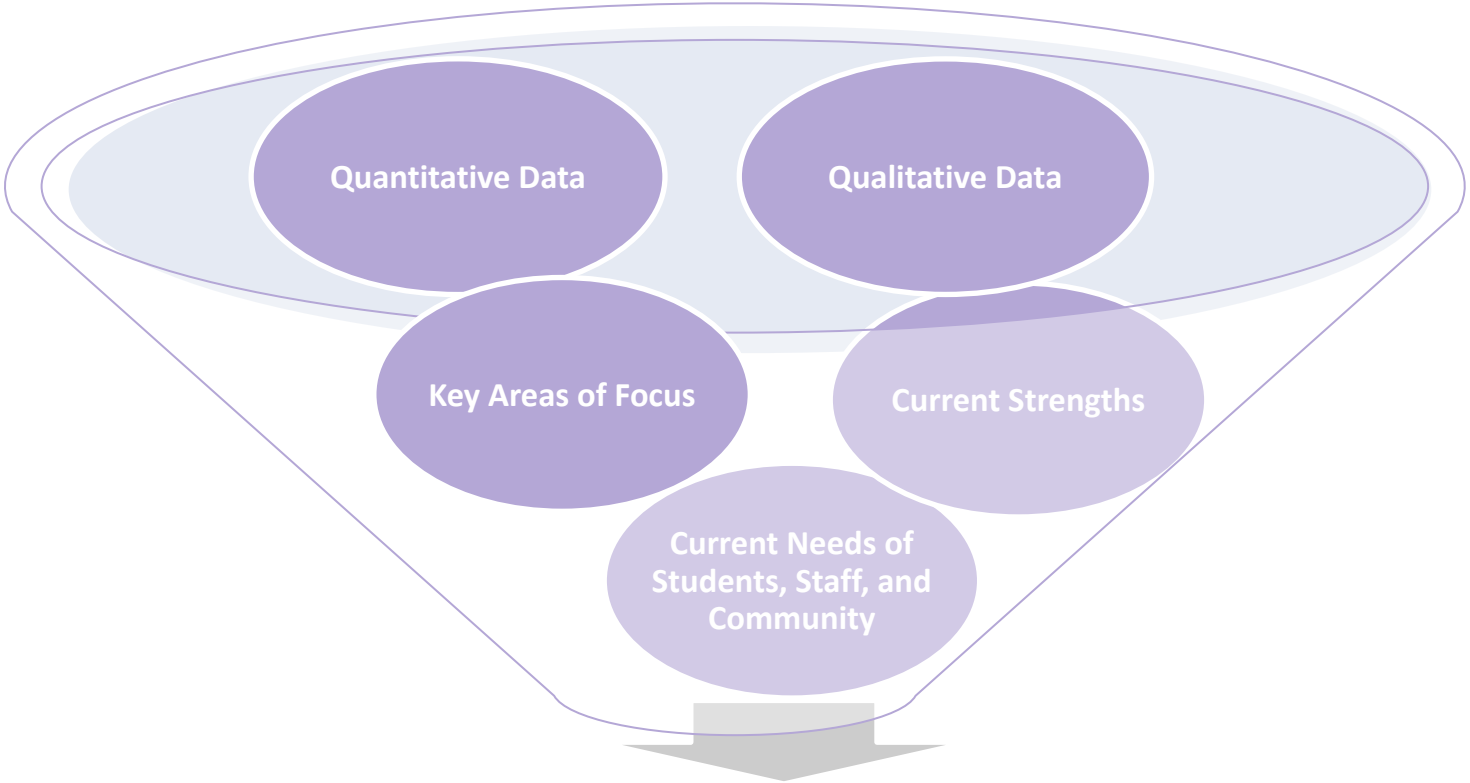
Full List of BWRSD Staff and Community Members Serving on Charter Teams

BRISTOL WARREN REGIONAL SCHOOL DISTRICT



5 key priorities were chosen for the District charter groups:

- **Climate & Culture**
- **Teaching & Learning**
- **Professional Learning**
- **Career & Technical Education**
- **Communication**



Priorities and Associated Metrics for each group

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Bristol Warren Regional School District has many areas of strength to build upon.

Culture & Climate	Dedicated therapeutic staff and support staff, connections to community resources, Secondary Social Emotional Learning initiatives, Supportive Administrators
Teaching & Learning	Dedicated Teaching Staff and Support Staff, many examples of effective models of pedagogy, High School assessment development and validation cycle, integration of Big 3, Pride in schools and our students, access and use of technology
Professional Development	Overarching Professional Development personnel, Meaningful longitudinal plans, committed employees who want to learn, possess the technology to meet the Professional Development needs of all employees
Career & Technical Education (CTE)	2 RIDE Accredited CTE Programs: Business/Finance, Engineering (PLTW), CTE Advisory Board, Student interest in future CTE programs, skilled and motivated teachers, Naviance-ILP process, Foundational program at KMS
Communication	Strong culture within each school with staff, students and community, majority of staff enjoy working with fellow employees, feel a sense of pride for their building and work, multiple systems with which to communicate

Our Mission Statement

Engaging families and community partners in creating vibrant and adaptive learning environments that support all students in realizing their full potential as productive and successful members of our society.

Theory of Action

IF WE…

- Create and promote a culture and climate in all schools that is safe, inclusive, vibrant and an adaptive learning environment supportive of all students,
- Support High Quality Teaching and Learning at each level (PK-12) including High Quality core curriculum and robust Multi-tiered Systems of Support within each school,
- Develop & Provide Professional Learning opportunities for all staff to support continuous learning to provide students with rigorous academics,
- Expand our Career & Technical Education program for students,
- Commit to frequent and purposeful communication to staff, families, and the larger community,

THEN WE WILL…

- Enable each and every student to succeed in college, career, and life.

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

1

Engage families and community partners in creating safe, inclusive, vibrant and adaptive learning environments that support all students in realizing their full potential as productive and successful members of our community.

- BWRSD will create and maintain a positive school culture and climate for all students and staff.
- BWRSD will reflect upon and improve teaching and learning for all students in all classes.
- All BWRSD staff will engage in meaningful, job embedded professional development.
- BWRSD will enhance transparency, our customer service model, system procedures and communication with parents staff and community members.

How we will measure progress:

- Surveyworks data from individual schools and sub-groups (Baseline: School Climate 59% favorable)
- Review student and staff attendance, disciplinary referrals, nurse visits
- Student proficiency by academic achievement (Baseline from RIDE's Assessment Data Portal : ELA SAT- 48% Math SAT- 23% ELA RICAS- 49% Math RICAS- 29%)
- Student success as measured by transitional survey data

2

Strengthen students' PK-12 roadmap to college and careers through high quality core curriculum and robust Multi-tiered Systems of Support within each school.

- BWRSD will ensure high quality curriculum and instruction are in place in all content areas so that 75% of all students or higher meet and exceed proficiency measures on state and local assessments.
- BWRSD will strengthen the PK-12 system of academic and behavioral supports and interventions (Response to Interventions/Multi-tiered Systems of Support).
- Enhance students' PK-12 roadmap to college and careers through: school readiness, experiential learning, Career and Technical Education, and dual/concurrent enrollment.

How we will measure progress:

- By 2025 High Quality curriculum in place in English Language Arts, Math, and Science and all staff in engaged in ongoing professional learning.
- All BWRSD educators will be trained in the Science of Reading.
- By 2027 75% or more of students will achieve proficiency on state and local assessments and at least 85% of all students will be proficient in reading by grade 3.
- A Multi-tiered Systems of Support framework and team protocols operational in all schools with evidence of closing achievement gaps, particularly for students with disabilities and Multilingual Learners.
- Increased school readiness measured by K screening and number of students completing preschool.
- All students in Gr 6-12 complete an Individual Learning Plan and work based learning and/or college course work upon graduation.

3

Develop High Quality Professional Learning experiences for all staff that are relevant, purposeful, systematic, and structured with a goal of improving and building upon educator's practices and student outcomes.

- BWRSD will appoint a district Steering Committee to develop a district Professional Learning Framework, plan district-wide Professional Learning and evaluate learning outcomes.
- School Improvement Teams will establish School Based Professional Learning Teams that will plan school-based Professional Learning that align to School Improvement Plans.
- The District Steering Committee will develop and implement systems/structures to support onboarding of new staff AND provide opportunities for staff to lead professional learning and promote teacher leader development.

How we will measure progress:

- Establishment of a district Steering Committee facilitated by the Assistant Superintendent
- Establishment of School Based Professional Learning Teams with monitoring by District Steering Committee
- Surveyworks data from individual schools (Baseline: Professional Learning - 34% Favorable)
- Summative and formative evaluation tools: Professional Learning Evaluation Data (Frontline and Professional Learning Feedback)

4

Expand Career and Technical Education (CTE) offerings for students and create the infrastructure and policies to support CTE expansion.

- BWRSD will develop comprehensive and inclusive CTE policies and processes to expand CTE programs and pathways.
- BWRSD will increase the number of CTE programs offered in district.
- BWRSD will develop and implement a district-wide Marketing plan for CTE programs.
- BWRSD will increase the number of students successfully completing CTE programs by 20% each year for next 5 years.

How we will measure progress:

- Comprehensive Local Needs Assessment (CLNA)
- Student CTE Interest Survey
- RIDE Diploma Plus Local Education Agency (LEA) Comparison Measures
- Various descriptive data points related to marketing plan (i.e. traffic to website, number of inquiries, number of people attending events, number of out-of-district students entering the district, etc.)

5

Communicate timely and intentionally with students, families, staff, and the community to create and deepen an intentional, inclusive, and transparent culture.

PRIORITIES

- BWRSD will communicate in an ongoing and consistent manner, utilizing various methods to reach and engage students, families, staff, and the community to create meaningful collaboration.
- BWRSD will create a cohesive brand for external and internal communication purposes for all communications.
- BWRSD will foster an inclusive culture where all students, families, staff, and the community are valued and respected in order to model for our students to be responsible and engaged citizens and future leaders.

How we will measure progress:

- Surveyworks data from individual schools to drive our priorities and implementation plans (Baseline: Family Engagement 11% Favorable, School Engagement 53% Favorable)
- Annual Surveys to students, families, staff, and community members measuring communication practices within the district strategic plan
- Review website analytics to determine usage rates

Questions for the Community

1. Which parts of the strategic plan are particularly exciting or strongly resonate with you?

2. Do you feel that there is an area of focus missing from this proposed plan?

3. Do you have any questions about the proposed strategic plan?

Click this link to fill out the questions via the Google Form/Survey starting on April 25, 2022

URL: https://forms.gle/aDe3ikrL18KhnPr1A

Google Form/Survey will be available for 30 days (April 25 - May 25, 2022).









Town of Bristol

2016 Comprehensive Community Plan













Adopted by the Bristol Town Council: January 25, 2017
Reference Bristol Town Code Section 1-11

Approved by the State of Rhode Island: February 2, 2017







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ACKNOWLEDGEMENTS

Comprehensive Plan 2016

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Anthony Bravo
George Burman
Pam Delany
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Homes and Neighborhoods
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Diana Campbell
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Natural, Historical, Cultural
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Jason Brignola
Virginia Cairrao
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Didi Carlsten
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Gayl Hallagan
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Stephen Katz, Chairman
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INTRODUCTION

Bristol's Comprehensive Community Plan – 2016 is the primary land use document for the Town. This plan provides for the protection, development, use and management of our land and natural resources. All Bristol land use decisions must be consistent with this comprehensive plan. As with all good plans, it is a living document subject to periodic amendments as conditions, resources and town preferences evolve.

Elements

The Bristol Comprehensive Community Plan – 2016 includes the following elements which were part of the original Plan adopted in 1991, amended in 1994 and updated in 2003.

1. Vision, Goals, and Policies
2. Snapshot of Bristol
3. Land Use
4. Housing
5. Economic Development and Agriculture
6. Natural, Historical, and Cultural Resources
7. Open Space, Conservation, and Recreation
8. Circulation and Transportation
9. Services and Facilities
10. Implementation Program

Format

The Comprehensive Community Plan – 2016 has been completely reformatted in style and font from the 2009 plan. However, in terms of content, each element contains goals, policies, and implementation action items that were updated by the Comprehensive Plan Advisory Committee.

The following plans serve as technical documents that can be referenced for more detailed information and historical analysis:

1. Harbor Management Plan (February 2, 2005, updated January 2011)
2. Affordable Housing Production Plan (June 2005)
3. Route 114 Scenic Roadway Stewardship Plan (June 2005)
4. Metacom Avenue Corridor Management Plan (June 2007)
5. Open Space Plan (June 2008)
6. Marine Inland Trades Route (April 2011)
7. Natural Hazard Mitigation Plan (September 2010) and the Draft Natural Hazard Mitigation Plan Update (November 2015) which has been recently completed by the Town and forwarded to the Rhode Island Emergency Management Agency for finalization.

Relevant sections of these plans noted above were integrated into and reflected in the goals, policies and implementation actions within the appropriate standard elements of this Comprehensive Plan. These plans, which provide more detail, are available to the reader for perusal in the Town Hall, for copying at a nominal charge and on the Town of Bristol website at www.bristolri.us. It was this information in the form of hard data and subjective opinions together with citizen preferences which guided the goals policies and action items in this plan.

This Comprehensive Plan – 2016 includes many new policies and action items in response to the public input and trends. While many of the Town's Vision and Goals for the future as stated in the 2009

Plan have been reviewed and reaffirmed, this Comprehensive Plan – 2016 now includes the concepts of smart growth, climate change, and protection against natural hazards. The maps, including the Future Land Use Plan have been reviewed and updated to illustrate the recommendations of the Comprehensive Plan Advisory Committee by the Town. A map to illustrate the inconsistencies between the Future Land Map and the current zoning map is also included in this plan.

In the instance of uncertainty in the interpretation of any map in this Comprehensive Plan – 2016, the text shall govern in determining the goals, policies, and action items of any applicable element of the Comprehensive Plan.

As stated earlier, the Comprehensive Plan has served the Town well and has become the blueprint for action by the Planning Board and other Town Departments. The Town has also been very successful in accomplishing many of the actions from the 2009 plan. This version of the Comprehensive Plan places a great deal of emphasis on the concept of "stewardship" and "community". It is the intent of this plan to impart a sense of responsibility to all Bristol residents and businesses that they are stewards of their Town's future. It is not enough to rely on elected and appointed government officials to assure that actions today will not impair the quality of life for future generations. Government agencies, from the Town Council to the Planning board, including the Town Administrator, and the Department Heads, all the various commissions and boards that take responsibility for some aspect of civic life has the duty to carry out one or more elements of this Comprehensive Plan. But, ultimately, the existence of a dedicated and passionate citizenry will ensure that stewardship in the decades ahead.

Guide to the Plan

The Bristol Comprehensive Plan, in its fullest form, is a long and detailed document. The following questions and answers are provided to assist both the first-time reader and long time use in understanding the purpose of the plan and in finding the information he or she needs from the plan.

1. *What are the components of the Plan?* This plan has been revised to integrate and reflect the relevant details from the following plans which serve as technical documents that can be referenced for more detailed information and historical analysis : 1991 Comprehensive Plan as amended in 1994 "Blueprint for Action" and "Planning Analyses"; Comprehensive Plan – 2003; Comprehensive Plan - 2009; Harbor Management Plan (February 2, 2005 updated January 2011); Affordable Housing Production Plan (June 2005); Route 114 Scenic Roadway Stewardship Plan (June 2005); Metacom Avenue Corridor Management Plan (June 2007); Open Space Plan (June 2008); Marine Inland Trades Route (April 2011) and Natural Hazard Mitigation Plan (September 2010) and the Draft Natural Hazard Mitigation Plan Update (November 2015) which has recently been completed by the Town and forwarded to the Rhode Island Emergency Management Agency for finalizing.

2. *What significance does this Plan have for Bristol?* The Bristol Comprehensive Plan was prepared under the authorizing legislation of Chapter 45-22.2, the Rhode Island Comprehensive Planning Act and Land Use Regulation Act of 1988. Under this Authority, the Comprehensive Plan is the primary land use document for the Town and all Bristol land use regulations, and decisions must be consistent with this Comprehensive Plan.

3. *Can the Plan be changed?* Yes. State Law allows a Town to amend the plan up to four times per year. The intention of this plan is not to set in stone requirements that the town must follow but rather to record policies and actions that make sense for Bristol today and to put in place a process of careful deliberation if those policies or actions are questioned or should be changed in the future. As with all good plans, it is a living document subject to periodic amendment as conditions, resources and town preferences evolve.

4. *How should the plan be used?* The Comprehensive Plan is intended to provide information and direction for decision making. It also defines the broad development and protection priorities for the town. The Plan should guide annual priorities for development actions and budgeting. It should also provide a framework for all future private or public development projects. The Plan should

encourage the asking and answering of the following question: *"How will this project or action affect the town in the long run."*

Community Participation

The 2016 update to the Comprehensive Plan began in September of 2013 with the Vision for Bristol civic engagement forum. The Vision for Bristol forum was modeled after the 2007 community forum "Voices for Bristol" -- a very successful broad public engagement process generating a lot of interest from volunteers to serve on the Steering Committee for 2009 Comprehensive Plan Update.

Based on the positive experience with the 2009 Update, the Town requested that the Voices for Bristol group organize another public forum specifically for collecting input for the Town's 2014 Comprehensive Plan Update and to solicit volunteers to serve on the Comprehensive Plan Update Steering Committee. This process was also very successful and many enthusiastic citizens expressed a desire to continue the conversations and to work to help achieve the vision.

On September 19 and 25, 2013 a forum was held entitled Vision for Bristol. This forum was attended by approximately 140 volunteers to gain ideas and directional vision for the future development and growth of Bristol. The top six themes and concerns of the forum were infrastructure/traffic especially along Hope Street, and Metacom Avenue., economic development, education, waterfront, environmental/natural resources and recreation/entertainment. Details of the forum are included in the Vision for Bristol Forum Report prepared by the forum facilitator Diana Campbell and appended to this 2016 Comprehensive Plan (see Appendix B).

As a result of this forum there were 51 residents who signed up to volunteer on the Steering Committee for the Comprehensive Plan Update. Residents were asked to provide their area of interest and everyone was included on the Committee and assigned to a particular Comprehensive Plan Element depending on their expressed area of interest. Each of the Planning Board members were assigned a particular element and served as the Chairman of that working group.

The full Steering Committee worked in plenary session three times and heard presentations from state agencies on climate change,

energy efficiency, and the Comprehensive Plan requirements and process. Each of the element working groups also met many more times over the course of six months. Each of the groups researched best practices, interviewed agencies, organizations, and leaders with expertise in the various elements. The Economic Development working group also conducted significant outreach to the business community and interviewed 40 representative businesses from each of the various business sectors in Bristol. Their results were further refined into specific groupings for the recommended action items and each of the action items were also tied to the affected business sector.

Consistency with State Guide Plan

The Town has reviewed and is familiar with the State Guide Plan elements. This Comprehensive Plan – 2016 was written to be consistent with the State Guide Plan Elements, including Land Use 2025.

1. Vision, Goals, and Policies

Our vision for the future of Bristol is a personal statement by the people of our Town about how we want to manage the changes that will shape Bristol in the decades ahead. A vision statement helps to provide a context to and clarity for goals as they are articulated. The vision must serve as a clear guide for engaging the Town to move in certain directions and for motivating people to action. The following statement is a vision of what Bristol intends to be in the future. Deliberately, our goals are set high. This statement is intended to convey some of the emotion that we feel toward our Town and what it can be in the future.

Vision Statement

Bristol shall become a model seaside community for the 21st century. It shall become "the gem of the East Bay." Bristol will be exceptional in the degree to which it will offer a small town, historic character blended with varied living and working environments, all closely connected with the water.

Each Bristol resident will feel that they are part of a long history of careful and people-oriented town-building. Few towns will have the historic resources comparable to Bristol, ranging from one of the most sacred Native American sites – King Phillip's Chair on Mount Hope – to some of the state's most exceptional architecture to the only true colonial common in the state.

Bristol will be unmatched in the degree that it offers a range of open space environments in such close proximity to residents' homes. Bristol's schools will be rated among the best in the state. Bristol's

government will provide innovative services within a fiscally responsible framework that gives taxpayers the most for their tax dollars.

Bristol will be the home of the small manufacturer as well as the home for a few larger, growing firms that began in Bristol and decided to stay rather than move elsewhere. Bristol will be a place that continues to provide people economic opportunity from the sea through fishing, boating, recreation, aquatic biotechnology and research.

Bristol will be a town that jointly embraces both the past and the future and brings the two together in a manner that will set the standard for decades to come.

Bristol shall be a model seaside community for the 21st century.

Defining Features and a Central Goal

Two features help to define Bristol's character, and those assets serve as a foundation for this Plan:

1. Location on a peninsula surrounded by coastal waters forming part of Narragansett Bay, and
2. Historic street layouts, sites, and buildings.

When one considers all the factors that make Bristol different from other towns or special, or that affect the way the Town looks or how it operates, or that define its limitations and strengths, one keeps coming back to these two defining features. If this entire Plan can be condensed into one broad goal statement, that statement might read as follows:

The Town of Bristol shall in all its planning efforts attempt respect and reflect its historic character and its close association with the surrounding bays and harbor. These resources shall be protected and enhanced and used as the foundations upon which future change should be built.

Goals and Polices

Land Use

Goal 1. **Promote land use patterns that are sensitive to the Town's character and assets, recognize the Town's resource constraints, are economically sound, and facilitate smart growth to build capacity in sustainability and climate resiliency in Bristol.**

Policies to Implement Goal 1:

- **A.** Protect Bristol's natural landscape and resources for present and future generations.
- **B.** Respect the historic resources that link Bristol's present with Bristol's past and use these resources as guidelines for managing future growth.
- **C.** Plan for both passive and active recreation, conservation, and open space, using a comprehensive approach and giving consideration to development trends and to the demands of the community.
- **D.** Maintain a strong tax base, favorable tax rate and identify alternative revenue sources.
- **E.** Maintain the character of Bristol and make sure that new development does not adversely impact the integrity of the Town.
- **F.** Embrace Smart Growth principles, conservation development zoning and encourage sustainability of our resources in all land use decisions made by the Town of Bristol.

Housing

Goal 1. **Work for a continued range of housing opportunities so that Bristol can continue to be home to our traditionally diverse population.**

Policies to Implement Goal 1:

A. Direct Town efforts toward addressing housing needs that the private market does not, or cannot, meet.

B. Address the needs of Bristol's special demographic groups, to include: working families, single parent families, parents whose children are grown, persons living alone, and the elderly.

C. Make sure that housing programs first meet the needs of Bristol residents.

D. Encourage a broad range of housing costs, with special emphasis on creating and maintaining houses and apartments that are affordable to lower income residents.

E. Work toward a range of housing types to match residents' differing preferences and resources for their physical environments.

F. Encourage a range of housing ownership and rental options to match residents' differing preferences and resources, to include: home ownership, rental, accessory apartments, condominium, cooperative, and congregate.

G. Continue programs to help elderly and others on fixed incomes stay in their homes.

H. Encourage coordination among the public agencies and the community organizations to leverage their resources and generate new programs.

Goal 2. **Ensure that neighborhoods are livable places.**

Policies to Implement Goal 2:

A. Historical and architecturally significant properties should be surveyed and designated for preservation.

B. The Town is encouraged to investigate new urbanism techniques such as form based vs. use based zoning regulations to maintain characteristics of existing neighborhoods.

C. Sidewalks are encouraged for safety and sustainability purposes in new developments.

D. Connectivity must be maintained between neighborhoods as essential to quality of life, as well as for safety and convenience.

E. Address the issue of exterior lighting for public and private development, balancing the need for adequate lighting with the need to avoid excessive lighting on nearby residences.

F. Provide adequate water supply and pressure.

G. Buffer neighborhoods from incompatible land uses.

H. The Town should continue to call for adequate buffer zones between incompatible uses (i.e. between adjoining industrial and residential areas).

I. Take into account existing land use patterns when designing new zoning regulations.

J. Promote good design in all future developments.

K. Require that new developments stay within a scale that is appropriate to Bristol and to surrounding homes.

L. Strengthen the services and amenities that make Bristol a good place to live.

Goal 3. **To protect the safety and welfare of all residents, new residential development along the waterfront, especially on undeveloped land, should be carefully reviewed and considered for its appropriateness.**

Policies to Implement Goal 3:

A. Continue participation in the National Flood Insurance Program in order to allow property owners the ability to purchase flood insurance. Any waterfront development should be required to provide public lateral access to the waterfront.

B. The Town will pursue federal and / or state funds to purchase flood prone properties.

C. The Town must stress the need to maintain large tracts of open land as still exist.

Goal 4. Create affordable housing opportunities and diversify the housing stock.

Policies to Implement Goal 4:

The Town's Affordable Housing Production Plan of 2005 recommends the following affordable housing policies and they are re-affirmed and incorporated in this Plan. The Town of Bristol's affordable housing goals are as follows:

A. Create a diversity of housing types that meets the current and future needs of low-moderate income residents, employees, and special needs populations. While Bristol does currently have housing for the elderly, families, single persons, and special needs populations, the majority of housing being built in Bristol is out of the reach of the low-mod populations. The housing gap this causes will continue to grow unless Bristol continues to actively and aggressively pursue the development of affordable housing within the town.

B. Meet and surpass the 10% Goal for affordable housing.

C. Provide housing opportunities for the Town's special needs populations. Achieve or maintain, whenever possible, at least a few housing units that will provide opportunities to households of one or more of the groups that have been identified as being of particular need in Bristol, with the following targets: Family Housing 394 Units, Elderly Housing 96 Units, Special Needs Housing 73 units. Include careful and creative decisions about how the public purpose of expanded housing opportunity can be combined with other public purposes on any given site.

D. Revise the zoning ordinance to promote affordable housing and housing that meets the needs of all Bristol citizens.

E. Identify potential locations for affordable housing development.

F. Strengthen partnerships and build community support for affordable housing development.

G. Identify existing and new resources for affordable housing development.

H. Encourage public /private partnerships for the creation of affordable housing which will provide additional funding opportunities such as grants.

I. Ensure the long term affordability of housing.

Economic Development and Agriculture

Goal 1. **The sustained, viable growth of business to provide for improved standard of living and economic health of Bristol, the pursuit of which should be built upon Bristol Values and Attributes, as follows:**

- **Fostering a culture of positive community action, collaboration and support;**
- **Looking for a better future – attitude backed by action – "Getting to Yes!";**
- **Developing a vibrant downtown of regional stature;**
- **Enhancing our reputation of strong historic New England coastal town charm;**
- **Safeguarding our family and neighbor-oriented commitment;**
- **Honoring conservancy/stewardship as a given; and,**
- **Leaving Bristol a better place – ensuring opportunities for future generations through education and workforce development.**

Policies to Implement Goal 1:

A. Leadership and collaboration: making economic development a priority in Town organization and process.

B. Streamlining regulations, permitting and approvals to encourage business growth.

C. Expanding development, marketing and advertising initiatives to support core and emergent business growth.

D. Modernizing Civic Services and Utilities for 21st century business requirements.

E. Improving programs to develop a 21st century workforce.

F. Sustaining agriculture and development aquaculture.

Natural, Historical and Cultural Resources

Goal 1. **Protect Bristol's natural landscape and resources for present and future generations.**

Policies to Implement Goal 1:

A. Protect Bristol's water, air, soil, plant, and wildlife resources, especially all resources that are identified as being threatened or endangered. Protect and encourage biological diversity. Conserve and manage natural resources in a manner that consistent with the contemporary vision of the town.

B. Use and update the Bristol Open Space Plan. Create a list of open space resources and access points.

C. Work to conserve and protect fields and farmlands in Bristol through acquiring development rights, acquisition, easements, or conservation restrictions by the Town or the Bristol Land Trust.

D. Ensure that future generations have well marked, maintained and enforced public access points to the bays and to fresh water resources.

E. Increase and maintain the forest cover by 25% by the year 2020.

Goal 2. **Continue to protect the historic and cultural resources that link Bristol's PAST with the vision for Bristol's FUTURE.**

Policies to Implement Goal 2:

A. Define, promote and protect elements of each part of Bristol's cultural heritage including its cultural and historic institutions.

B. Continue to update and expand the local and National Register of Historic Places and Districts.

C. Incorporate historic resource protection and planning within the overall community planning and development review process. Identify and protect historic, cultural and natural landscapes, plantings and features within Bristol.

D. Coordinate the historic preservation and planning policies of the various branches of local and state government.

E. Monitor the archeological resources in culturally sensitive areas in a manner consistent with state law and with standards of good archaeological practice..

Goal 3. **Protect and foster cultural diversity and reinforce the character defining events, activities, and features within the town. Utilize open space for cultural activities.**

Policies to Implement Goal 3:

A. Identify and reinforce the cultural aspects that make Bristol a special place to live.

B. Limit the adverse impact of proposed development upon the cultural resources of the Town.

C. Support and promote development that protects and enhances the cultural resources of the town, including its cultural institutions.

D. Tell the Bristol story through installation of interpretative signs throughout town and work on the development of a Bristol Historical or Heritage Trail both on land and on the water. Some signage is in place at the East Bay Bike Path.

E. Continue to work with Newport Chamber of Commerce and Explore Bristol to publicize and promote tourism in Bristol through, for example, efforts such as the Bristol - Newport Heritage Trail and similar initiatives.

Goal 4. **Educate and motivate the public to encourage involvement and increased awareness of every person's responsibility to preserve and protect the natural, historical and cultural character of the town.**

Policies to Implement Goal 4:

A. Regulate growth and development so as to protect natural, historical, and cultural resources for future generations.

B. Educate the public to the long term value of the natural, cultural, historical resources and their relation to the quality of life.

C. Commit long term financial resources of the Town to protecting open and natural land for public purposes while ensuring that the long-term costs of maintenance and liability are considered when deciding on public acquisition of lands or land rights.

D. Monitor the state and federal government's role in resource protection and insist on improvements where they are needed.

E. To encourage creative deliberation among interested public and private parties focused on utilizing our natural, historical and cultural resources as engines for economic development.

Goal 5. **Promote environmental education and conservation for children and adults.**

Policies to achieve Goal 5:

A. Conduct environmental education classes that coincide with existing recreational programs and partnerships with local organizations such as Save Bristol Harbor, Bristol Land Trust, Audubon Society of Rhode Island, and Bristol Recycles.

B. Install environmental and conservation related signage and kiosks where appropriate to educate the public to ongoing environmentally beneficial projects.

C. Promote education relating to water quality and protection of water resources recognizing that Bristol is a peninsula that is surrounded by and dependent upon water.

D. Promote environmental stewardship of land and water resources in school and recreational programs geared towards children.

E. Promote efforts to increase recycling and educate residents on the importance of recycling and proper recycling methods.

Goal 6. Promote water quality improvements to bay and other waterways in Bristol.

Policies to achieve Goal 6:

A. Incorporate water quality benefits in all developments and reconstruction projects undertaken by the Town.

B. Monitor development activity in surrounding areas that may impact Bristol's water supply, including but not limited to water resources in Warren, the Swansea, Seekonk, and Scituate reservoir areas.

Open Space, Conservation and Recreation

Goal 1. Maximize the public's ability to gain access to, and enjoy, the waterfront and bay areas that surround the Town.

Policies to Implement Goal 1:

A. Acquire additional beach and/or waterfront frontage along Bristol's shoreline.

B. Improve and maintain public boat launch sites along Bristol Harbor, Narragansett Bay, Mount Hope Bay, and the Kickemuit River, including small areas for kayaks.

C. Wherever possible, protect or regain the public's ability to view the bays and walk to the water's edge.

D. Maintain and publicize existing public rights of way and public access points throughout the Town.

Goal 2. Increase and improve land area reserved for passive recreation, conservation, and open space.

Policies to Implement Goal 2:

A. Acquire additional land in appropriate areas for passive recreation and trails (walking, biking, bridle, etc.) to enhance the quality of life of Bristol's increasing population.

B. Acquire additional land for purely conservation purposes, to be left in its original pristine state and also to protect diminishing ecologically sensitive areas.

C. Protect areas which provide greenbelts, open space, and relief from development — including Town-owned parks and open space parcels — through various layers of protection, such as conservation easements.

D. Continue efforts to increase, acquire, and protect existing areas of the Silver Creek Watershed Area.

E. Dedicate various Town-owned lots for sustainable and organic community gardens for the community's use. These gardens offer a sense of pride in one's community, help offset rising food costs, and give the opportunity for residents without yards to connect with the land.

Goal 3. **Create active recreation programs and facilities to serve the full range of Bristol residents.**

Policies to Implement Goal 3:

A. Ensure accessibility to open space and recreation areas for a diverse segment of the population.

B. Maintain emphasis upon a variety of imaginative new programs for recreation.

C. Support recreation's role as a community activity that brings people together.

D. Continue to encourage fair and equitable use of Town recreation facilities for all community groups through sensitive scheduling and sharing of facilities.

E. Acquire additional land for active recreation to enhance the quality of life of Bristol's increasing population.

F. Develop additional small neighborhood parks and open spaces in residential areas.

Goal 4. **Plan for recreation and conservation of open space by using a coordinated approach -- to include multiple uses of a site, and diverse forms of ownership, management, and financing.**

Policies to Implement Goal 4:

A. Coordinate public and private recreational opportunities to avoid duplication and to ensure efficient and cost effective use of recreational facilities.

B. Cooperate and coordinate with the State of Rhode Island, particularly in regard to the future of the state-owned Colt Park and the Veterans' Home property.

C. Develop recreation complexes rather than single purpose facilities, for example through combining education and recreation, or linking active recreation areas with quiet enjoyment of conservation lands or passive recreation. This would require coordination with the school and recreation departments.

D. While respecting the privacy of residences, connect recreation areas, neighborhoods, and as many other Town facilities as possible with a system of walkways, hiking trails, bikeways, greenbelts, and bridle trails.

E. Continue to use the Town budget process to acquire open space parcels and develop recreation facilities within the financial capabilities of the Town, but use funds more effectively, particularly in accommodating the needs and responsibilities of different agencies. Possibilities include, utilizing private, other local, and state agencies, as appropriate to receive and manage contributions designated for the purchase of land, easements, or development rights and to partner with the Town on the acquisition of properties for open space preservation.

F. Continue to act upon the options for acquiring dedicated open space lands through the Subdivision Rules and Regulations including impact fees.

G. Explore the potential recreation opportunities resulting from the closure of the Minturn Farm Area Landfill.

H. Continue to acquire and/or protect land in the area of Mount Hope through local, State and Federal monies, through local and State regulations, and through private foundations and land donations.

I. Use all available resources to purchase development rights for preservation of the last remaining farms in Bristol.

J. Consider potential recreational uses for decommissioned downtown school buildings.

K. Consider the recreation needs of students in future school facility plans.

Circulation and Transportation

Goal 1. Increase the ability to travel about town with ease.

Policies to Implement Goal 1

A. Provide more alternatives for residents to move about within Bristol without using Metacom Avenue or Hope Street.

- Improve links between neighborhood streets so that short cut use by regional traffic is discouraged.
- Integrate neighborhoods, services, and recreation areas with bikeways and walkways. (See the Path System described in the Open Space, Conservation and Recreation Element)
- Continue linkage of Town's nature trails.
- Reference the Poppasquash Road Pedestrian and Bicycle Facility report for guidance on connecting Hope Street to the East Bay Bike Path and the Colt State Park Bike Path.

B. Provide sidewalks or paths in areas where none exist. Encourage sidewalks in new developments that will connect with other sidewalks and trails. Greater focus on sidewalks should be directed to Hope Street, Ferry Road, and Metacom Avenue.

C. Manage parking, permitted land uses, signs, and traffic speed so as to protect the rights and safety of pedestrians and to encourage more walking.

D. Require future subdivision roads to link with the overall street system and provide interconnecting links to avoid cul-de-sacs.

Goal 2. Alleviate congestion caused by regional traffic patterns.

Policies to Implement Goal 2:

A. Encourage modes of transportation that are alternatives to the automobile.
   - Keep options open for rapid and water transit from Bristol to Providence to Newport and light rail from Bristol to Providence to Newport.
   - Consider how commuter bus service or van pools might serve Bristol residents.
   - Work with RIPTA in identifying, establishing and promoting a designated park and ride lot on both Hope St (Route 114) and Metacom (Route 136)
   - Provide safer access to boarding buses at bus stops.

B. The recommendations from the Metacom Avenue Corridor Management Plan should be required by the Planning Board in addressing development on or near Metacom Avenue.

C. Reduce and/or eliminate the curb cuts along regional street systems. Only consider new curb cuts if there is no other way to access a property.

D. Examine the feasibility of providing for most neighborhoods the option of accessing Route 114 or Route 136 via an existing signalized intersection.

E. Avoid regional traffic solutions, such as a bypass, that would benefit only regional travelers while hurting impacted neighborhoods and local businesses.

F. Minimize air pollution and surface water runoff pollution by encouraging alternative forms of transit to the gas powered automobile.

G. Coordinate all circulation plans with RIDOT on state roads.

H. Collaborate with other towns (Warren and Barrington) to examine more efficient alternatives for transportation between the towns.

Goal 3. Support economic development through a well-planned transportation system.

Policies to Implement Goal 3:

A. Maintain adequate traffic flows through commercial areas so as to support the local economic base. Include wayfinding to encourage people to park their vehicles and walk to destinations.

B. Improve the quality of roads and/or transit systems to commercial and industrial areas.

C. The installation of bicycle racks strategically placed throughout the Town will promote alternative transportation and create an invitation for visitors from the bike path to stay longer in town, therefore promoting area businesses.

D. Explore means to provide additional parking in the downtown to support economic development while protecting the areas character.

E. Study the possibility to expand alternate trolley service that could include an agreement with Roger Williams University to utilize their shuttle service.

Goal 4. Maintain a high quality transportation system.

Policies to Implement Goal 4:

A. Continue with an annual pavement management program as recently adopted.

B. All roads should be built only in accordance with the standards of a public road.

C. Maintain and improve the Town's roadways and drainage.

D. Continue to work with RIPTA to determine how its transit program might be altered to better support this plan.

E. Work with RIPTA in identifying placement of bus shelters along the RIPTA bus route. Utilize to the fullest the financial incentives provided by RIPTA to construct shelters, as needed.

Goal 5. **Provide adequate parking facilities for auto users without losing key elements of the town's character.**

Policies to Implement Goal 5:

- **F.** Discourage demolition of historic and other buildings important to Town's character for the purposes of providing parking lots.
- **G.** Work with the private sector to provide parking facilities.
- **H.** Explore the creation of parking areas for regional transit facilities.
- **I.** Continue to set high standards for design of parking facilities including landscaping, buffering, handicapped accessibility, pedestrian walkways, and lighting.
- **J.** Protect the environment from parking area stormwater runoff.
- **K.** Improve signage to direct the public to designated public parking areas, in addition to providing clear and concise signage as to rules governing regulations related to a given parking area.

Services and Facilities

Goal 1. **Continually seek to strengthen the quality of the Bristol/Warren School System's facilities in order to smooth the progress of teaching and programming.**

Policies to Implement Goal 1:

- **A.** Continually review and seek to improve teaching and program quality through appropriate coordination of all levels of government.

Goal 2. **Provide Bristol with sufficient water to meet projected growth.**

Policies to Implement Goal 2:

- **A.** Protect current water sources from further deterioration.

B. Promptly implement the program to upgrade the water delivery system to include new pipes and looping to improve circulation and pressure.

C. Increase efforts to conserve water at all levels of use.

D. Ensure that Bristol maintains into the future its options to use surface reservoirs.

E. The costs and benefits of future supply systems should be evaluated carefully by the town.

F. Implement strong effective measures to improve the management structure and administration of the BCWA.

G. Maintain the current minimum 10,000 square foot lot size in most undeveloped areas that are sewered and 2 acres on Poppasquash, which is lacking public water and sewer. While smaller lots can be developed with suitable wastewater treatment, Poppasquash is vulnerable to well-water drawdown and intrusion of salt or brackish water into the aquifer that feed the wells. A combination of lack of sewer facilities and endangerment of the underground water resources require strong consideration for two-acre zoning. Consider rezoning other vacant areas with no public water and sewer to two-acre minimum lot size. Maintain conservation development initiatives.

Goal 3. **Manage growth so as not to overtax the sewer system.**

Policies to Implement Goal 3:

A. Plan for growth in areas that are, or can be, served by the sewer system.

B. Direct growth away from areas that have no sewers and lie over or near critical environmental resources.

C. Reduce the amount of stormwater infiltration into the sewer system during significant storm events.

D. Revisit the Wastewater Facilities Plan of 2000 and determine effectiveness of the implementation and additional projects that may need to be addressed.

E. Continue to upgrade and improve the current sewer system.

Goal 4. **Maintain a favorable tax base.**

Policies to Implement Goal 4:

A. Encourage balanced growth.

B. Manage growth in concert with the fiscal capacities of the community.

Goal 5. **Maintain public infrastructure and services at a high level of excellence.**

Policies to Implement Goal 5:

A. Measure and monitor the quality of services so as to maintain high quality.

B. Plan for changing service requirements as demographics and economics change.

C. Continue to update and fund the five-year Capital Improvement Plan (CIP) for the Town's infrastructure and ensure adequate funding for Town services.

D. Continue the road and drainage maintenance program. Continue to implement and utilize a GIS database for management of pavement and sidewalk maintenance.

Goal 6. **Plan for and provide adequate services and facilities for emergency situations.**

Policies to Implement Goal 6:

A. Maintain the high quality of Bristol's emergency services and facilities.

B. Continue to update hazard mitigation plans which will result in fewer storm related impacts and losses to life and property.

C. Maintain emergency sheltering in locations outside of floodplain.

Goal 7. **Continually improve the efficiency of government while working to achieve excellent and equitable services.**

Policies to Implement Goal 7:

A. Seek ways to cooperate with the private sector to maintain and improve facilities and services.

B. Seek new, more efficient ways of including volunteers in the operation of Town government.

C. Continue and step up efforts to increase public awareness of the role of citizens in keeping Bristol clean.

D. Continue to utilize compost facility and use landscape maintenance specialists to assist the Department of Public Works crews.

Goal 8. **Continually improve the Town's recycling program to ensure that Bristol will meet the Rhode Island goal of a 35% recycling rate and a 50% solid waste diversion rate.**

Policies to support Goal 8

A. Continue the education and outreach programs to increase awareness of the benefits and the ease of single-stream of recycling and composting programs.

B. Consider programs to further encourage higher recycling and composting rates such as Pay-as-You-Throw and a regulation that requires a resident to put out a recycling bin in order to have his/her trash collected.

C. Monitor the participation rate for multi-family and commercial buildings waste and ensure that the collection rates are incorporated into the state's reported recycling and waste diversion rates.

D. Continue to provide residents with a hazardous waste center for disposing computers and other items that can be recycled at the landfill.

Goal 9. **Assess energy usage in municipal buildings and facilities and plan for increasing the energy efficiency and foster the increase in use of renewable energy in both municipal led public buildings and private buildings.**

Policies to support Goal 9

A. Continue to examine ways to ease the ability of residents to access renewable energy.

B. Keep current as new and better technologies become available for renewable and energy efficiency.

C. Promote new programs as they become available, partnering with the State Office of Energy Resources to market and advertise the programs to the broadest possible audience.

D. Continue to monitor and update as needed town service equipment, vehicles, and buildings. As upgrades are required, look to energy efficient replacements.

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2. Snapshot of Bristol

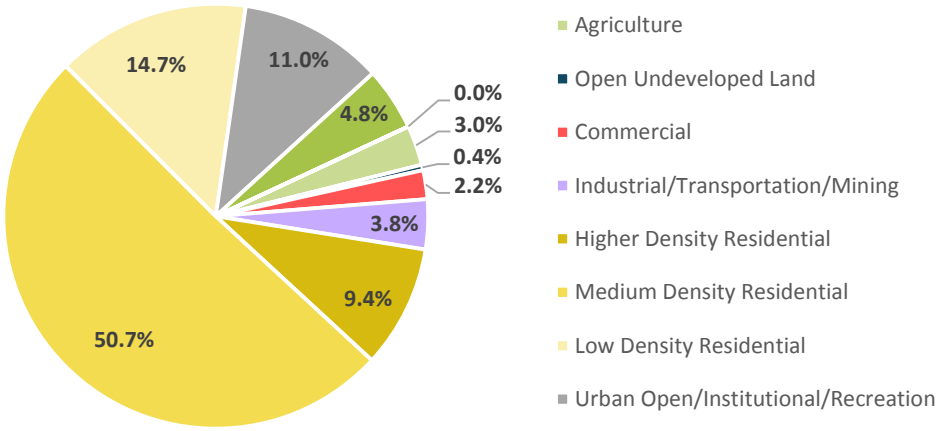
Introduction

The Town of Bristol is located on a peninsula in Narragansett Bay in the East Bay Region of Rhode Island. The Town has a total land area of approximately 10 square miles. The Town, founded in 1680, is rich in history and culture; and, is home to the Nation's oldest continuous 4th of July Parade.

Existing Land Use

Bristol has a diverse yet predominantly residential land use pattern. Nearly 75% of Bristol's land is used for residential purposes, among which more than 50% of the total is classified as medium density residential with lot sizes ranging from a quarter to 2 acres; almost 15% is occupied by low density residential with lots larger than 2 acres; and 9.4% for high density residential with lots smaller than a quarter acre (see Figure 2.1).

Figure 2.1: Existing Land Use in Bristol, RI



Source: Town of Bristol GIS data

More than 10% of Bristol's land is used for open space, recreation, and other institutional uses. An additional 4.8% is considered as natural undisturbed land, with another 0.4% classified as open undeveloped land. Commercial and industrial uses account for 2.2% and 3.8% of Bristol respectively, while agricultural land taking up another 3% of Bristol.

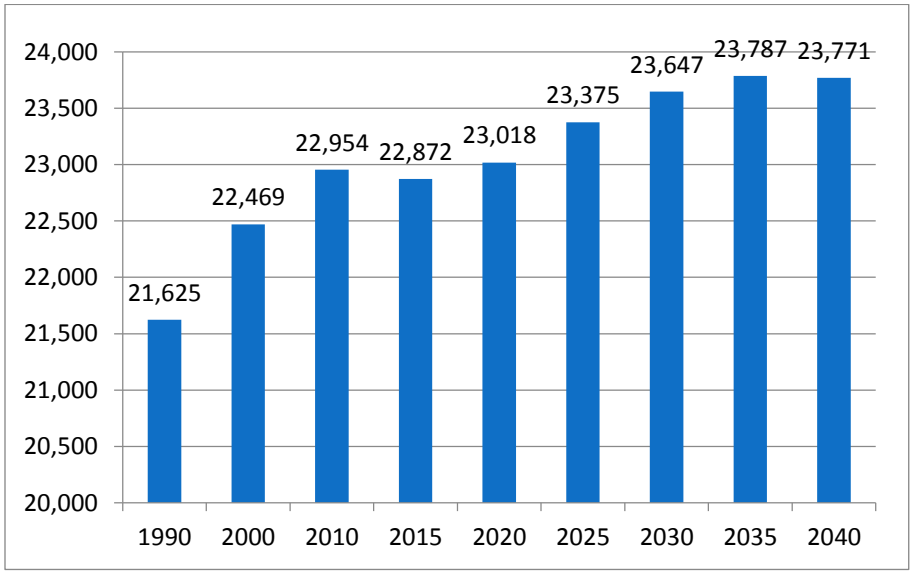
Demographic Profile and Projections

Several demographic trends, such as population growth, age distribution, household characteristics, etc., will influence the need for various types of housing in Bristol.

Population Growth

According to the US Census, Bristol's total population was 22,954 in 2010, representing a 2.1% percent increase from 22,469 in year 2000 and a 6.1% increase from 21,625 in 1990. Yet the population growth rate in Bristol will likely to slow down as the 2012 ACS 5-Year estimates a total population of 22,792 in the Town of Bristol. In addition, population projection data provided by the Rhode Island Statewide Planning Program indicates that Bristol's population will keep growing but at a much slower rate compared to the past two decades (see Figure 2.2). Bristol is projected to have a total population of 23,771 by Year 2040, representing a 3.6% growth rate over the next two and half decades.

Figure 2.2: Historic and Projected Population Growth in Bristol, RI

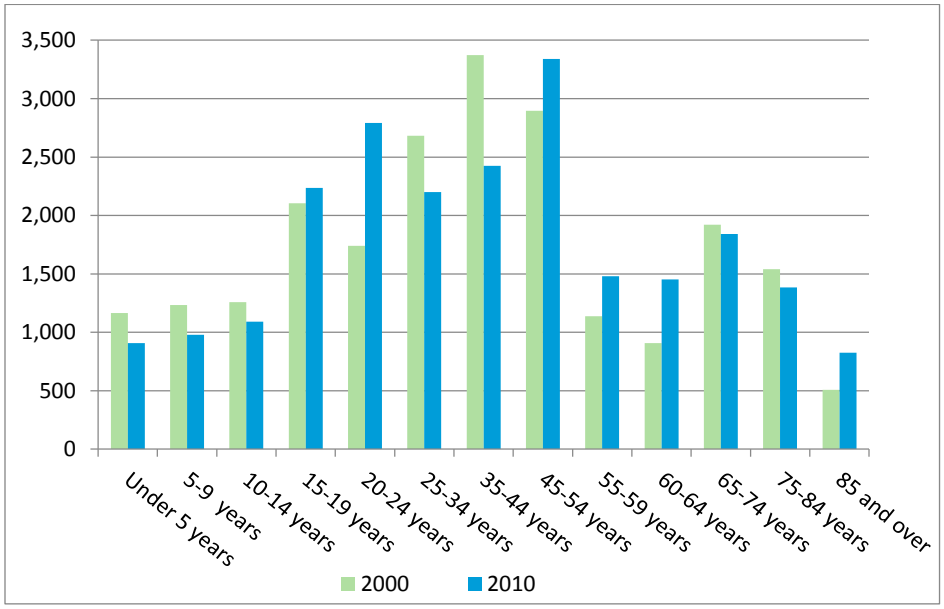


Source: US Census, Rhode Island Statewide Planning Program Population Projection

Population Age Distribution

Figure 2.3 shows the change of age distribution of Bristol's population from 2000 to 2010. Bristol experienced a 18.6% decrease in the number of children under 14 years old from 2000 to 2010, yet the number of teenage and young adults between 15 to 24 years old increased, particularly those between 20 to 24 years old which increased by 37.7%. In addition, the number of adults age 25 to 44 who are either entering the workforce or forming and raising their own families in Bristol declined significantly by 23.6% or 1,431 persons from 2000 to 2010, yet the number of people age between 45 and 54 increased by 13.3%. Similar to national trends, Bristol also experienced an increase in its elderly population. Overall the population age 55 to 64 increased by 30.2% between 2000 and 2010. Although population in the 65-84 age cohorts decreased slightly, Bristol has seen a growing population of age 85 and over during 2000 to 2010 (see Figure 2.3). However, as the Baby Boom generation continues to age, future trends are likely to show an increase in the number of people older than 65 years of age.

Figure 2.3: Distribution of Age, Bristol, RI



Source: US Census 2000 and 2010

Household Characteristics

From 2000 to 2010, Bristol's total household grew by 197 households or 2.3%. Other indicators that experienced growth included nonfamily households, increased by 886 or 15.4%; nonfamily households with householder living alone, increased by 297 or 11.9%; and nonfamily single person household with householder age 65 and over, increased by 113 or 10.3%. There are 290 fewer family households in Bristol from 2000 to 2010 or a 5.4% decrease. In addition, both the average household size and the average family size declined slightly, indicating an overall smaller household size of Bristol's households (see Table 2.1), which also mirrors national trends.

Table 2.1: Household Characteristics in Bristol, RI

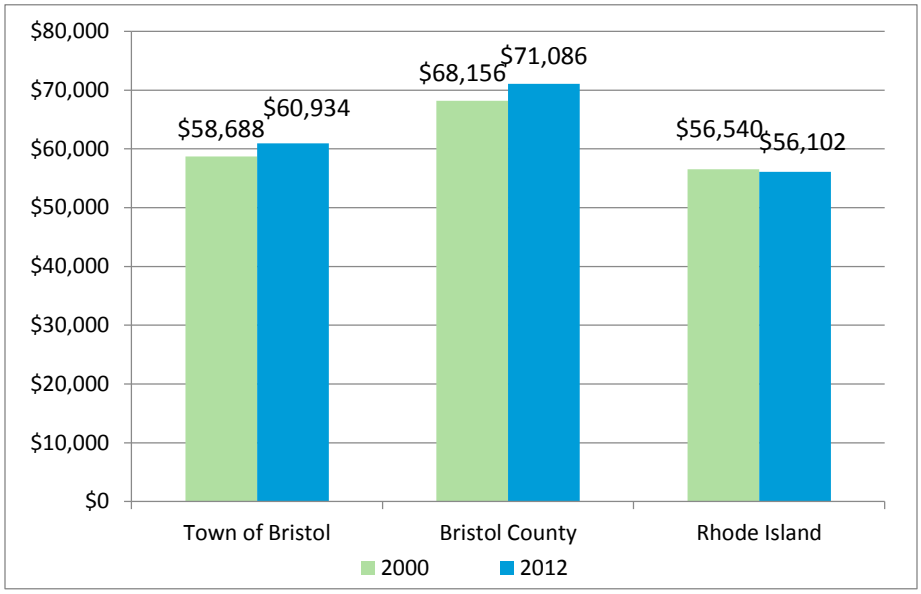
	2000	2010	Percent Change 2000-2010
Total Households	8,314	8,511	2.3%
Family Households	5,650	5,361	-5.4%
Married Couple Family	4,554	4,275	-6.5%
with own Children <18	1,812	1,942	6.7%
Female Householder, no Husband	837	802	-4.4%
with own Children <18	431	387	-11.4%
Nonfamily Households	2,664	3,150	15.4%
Householder Living Alone	2,189	2,486	11.9%
Householder 65+	988	1,101	10.3%
Average Household Size	2.45	2.35	-4.3%
Average Family Size	2.99	2.92	-2.4%

Source: US Census 2000 and 2010

Income Distribution

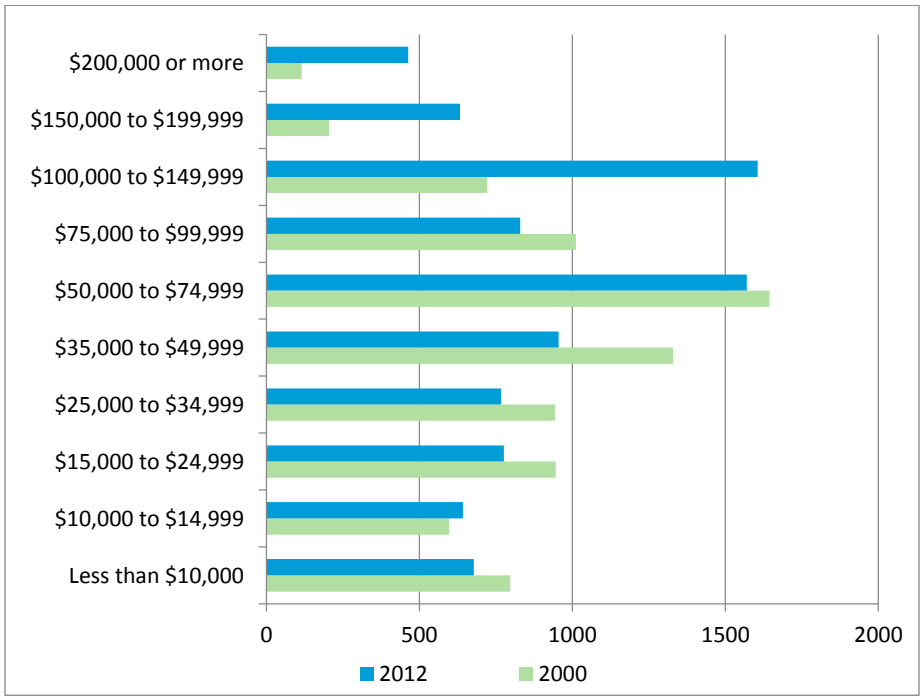
The median household income in 2012 was $60,934, representing an increase of 39.5% from the 2000 median income $58,688 (adjusted to inflation). When compared to the county and state, Bristol's median household income in 2012 was $4,832 higher than the state but $10,152 lower than Bristol County (see Figure 2.4). Between 2000 and 2012, there were general decreases in the numbers of households in several income categories ranging from less than $10,000 to less than $99,999, except for a small increase in the number of households earning between $10,000 and $14,999. However the number of households earning more than $100,000 increased significantly from 2000 to 2012 (see Figure 2.5).

Figure 2.4: Median Household Income in 2000 and 2012 (adjusted for inflation)



Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

Figure 2.5: Households Income Distribution, Bristol, RI



Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

Despite the overall increasing household wealth, there still remains a population living in Bristol with very limited financial means. Of the 8,921 households in Bristol in 2012, 678 or 7.6% had income of less than $10,000 and 1,418 or 15.9% of all the households had incomes between $10,000 and $24,999, representing extremely low-income levels at or below 30% of area median income. An additional 767 households had income within or around what public agencies would define as very low income of 50% of area median income based on 2012 levels (see Table 2.2). The total number of households within these lower income categories was 2,863 or 32.1% of all Bristol households, a significant amount that will affect the general housing needs.

Table 2.2: Percentage of Households Income Distribution, Bristol, RI

	2000		2012	
Total Number of Households	8311		8,921	
Less than $10,000	797	9.60%	678	7.6%
$10,000 to $14,999	597	7.2%	642	7.2%
$15,000 to $24,999	946	11.4%	776	8.7%
$25,000 to $34,999	944	11.4%	767	8.6%
$35,000 to $49,999	1,329	16%	955	10.7%
$50,000 to $74,999	1,644	19.8%	1,570	17.6%
$75,000 to $99,999	1,012	12.2%	830	9.3%
$100,000 to $149,999	722	8.7%	1,606	18.0%
$150,000 to $199,999	205	2.5%	633	7.1%
$200,000 or more	115	1.4%	464	5.2%

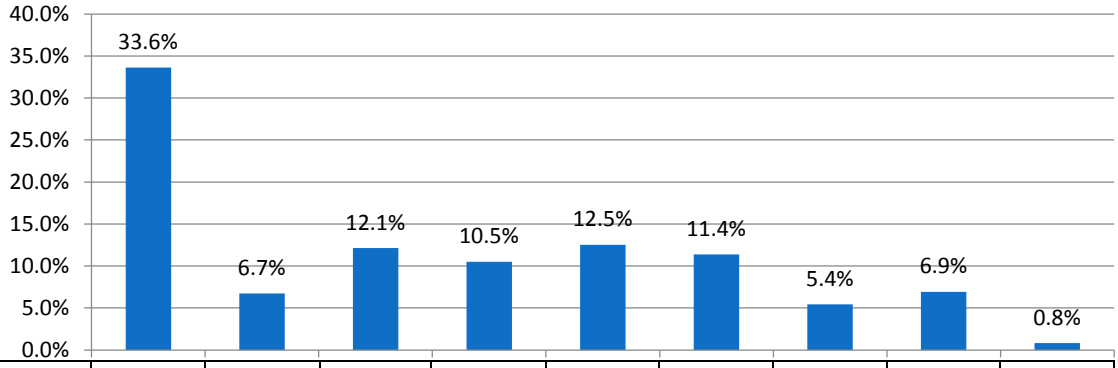
Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

Housing Profile

Age and Condition of Housing Stock

Information on the age of the Town's housing stock is presented in Figure 2.6. According to the 2012 ACS 5-Year Estimates, the Town of Bristol has a total of 9,625 housing units. The Town's housing stock is relatively aged with approximately 34% or 3,259 of all the housing units in Bristol built before 1939. Another 24.1% of the housing stock was constructed during the past 30 years, among which only 7.2% or 685 units were added during the past 15 years or so.

Figure 2.6: Age of Housing Stock in Bristol, RI



Year Built	1939 or earlier	1940-1949	1950-1959	1960-1969	1970-1979	1980-1989	1990-1999	2000-2009	2010 or later
Number	3,259	650	1,175	1,016	1,213	1,101	526	670	79
Percent	33.6%	6.7%	12.1%	10.5%	12.5%	11.4%	5.4%	6.9%	0.8%

Source: American Community Survey 2008-2012 5-Year Estimates

Housing Stock by Type

Table 2.3 compared the change in the number of different types of housing units in Bristol from 2000 to 2012. Single family detached housing comprises the majority, 62.1%, of the Town's housing inventory, while the second largest share is multi-family housing with two to four units per structure. From 2000 to 2012, Bristol's housing stock grew by 10.6%. Multi-family housing with three and more unit per structures, particularly ten or more unit structures, appear to be the fastest growing segment. Single family detached units also increased by 13% or 687 units. In contrast, single family attached units and two family housing decreased by nearly 29% and 9% respectively due to the significant increases in other housing types.

Table 2.3: Types of Housing Units in Bristol, RI, 2000 and 2012 ACS 5-Year Estimates

Type of Structure	2000 Units	2008-2012 Est		% Change 2000-2012
		Number	Percent	
Single-family (detached)	5,293	5,980	62.1%	13.0%
Single-family (attached)	361	257	2.7%	-28.8%
Two-family Units	1,175	1,074	11.2%	-8.6%
Three or four units	987	1,138	11.8%	15.3%
Five to nine units	476	597	6.2%	25.4%
Ten of more units	408	579	6.0%	41.9%
Mobile Home	5	0	0.0%	-100.0%
Total Units	8,705	9,625	100.0%	10.6%

Source: American Community Survey 2008-2012 5-Year Estimates

Housing Occupancy and Ownership

Housing vacancy rate indicates the availability of housing units in a community. In general a vacancy rate of 5.0% is considered ideal because it allows the population to move more freely in the marketplace. A vacancy rate below 5.0% indicates that there is a demand for additional housing. A vacancy rate greater than 5.0% may indicate that a community has a problem with underutilization, has an overabundance of rundown and disinvested properties, or lacks an effective redevelopment/reinvestment policy. High vacancy rates can also be the result of economic weakness at state, regional or national level.

Table 2.4: Housing Occupancy in Bristol, RI, 2000 and 2012 ACS 5-Year Estimates

	2000		2008-2012	
Category	**Number**	**Percentage of Total**	**Number**	**Percentage of Total**
Occupied Units	8,314	95.5%	8,921	92.7%
Owner-occupied	5,490	63.1%	6,036	62.7%
Renter-occupied	2,842	32.6%	2,885	30.0%
Vacant Units	391	4.5%	704	7.3%
Seasonal, Recreational or Occasional	130	1.5%	268	2.8%
Total Units	8,705	100%	9,625	100%

Source: American Community Survey 2008-2012 5-Year Estimates

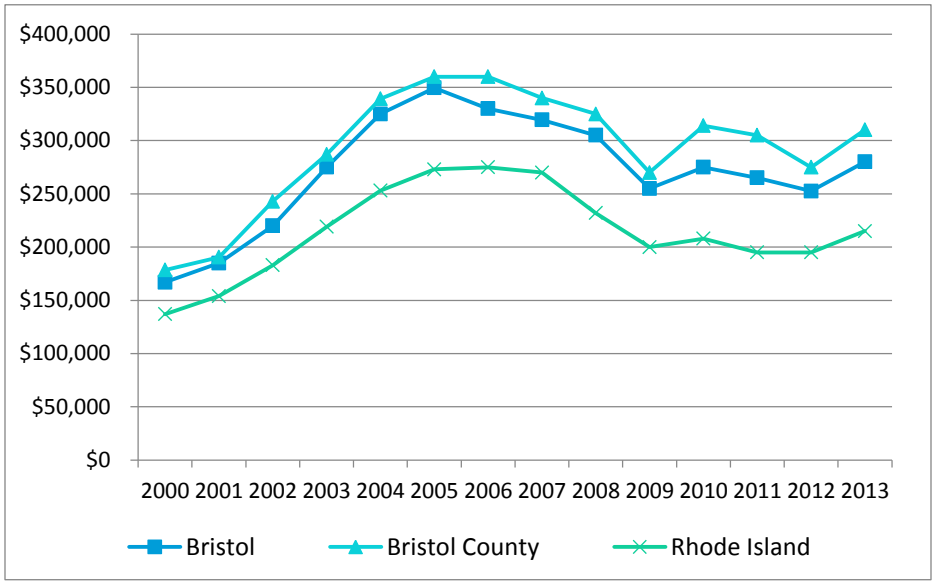
The overall occupancy rate of housing units in Bristol has declined by 2.8% since 2000, indicating an increasing number of vacant units in the town. Within the occupied housing units, the percentage of owner-occupied units has decreased slightly from 63.1% in 2000 to 62.7% in 2012 while that of the renter-occupied units decreased by 2.6% from 32.6% to 30%.

Housing Cost (ownership and rental)

Cost of Homeownership Units

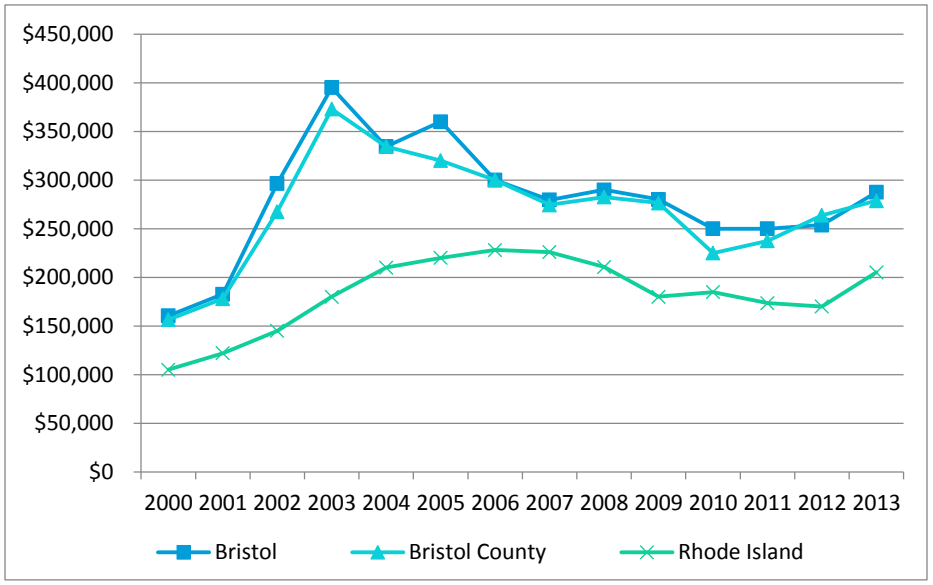
According to The Warren Group, the median sales price for single family houses sold in Bristol during 2012 was $252,500 or 51.3 % increase compared to $166,900 in 2000, and increased to $280,000 in 2013. In addition, the median sale price for condominiums sold in Bristol in 2012 was $253,750 or a 58.1% increase from $160,450 in 2000. Similar to single family housing, the median sales price for condo increased significantly to $287,450 in 2013. Overall in comparing Bristol to the county and state averages in 2012, Bristol's single family housing price is slightly lower than the Bristol County average but much higher than the state average (see Figure 2.7). However Bristol is almost consistently having a higher median sales price for condo units compared to the county and state average (see Figure 2.8).

Figure 2.7: Median Sales Price for Single Family, Bristol, County and State



Source: The Warren Group Town Stats

Figure 2.8: Median Sales Price for Condo, Bristol, County and State



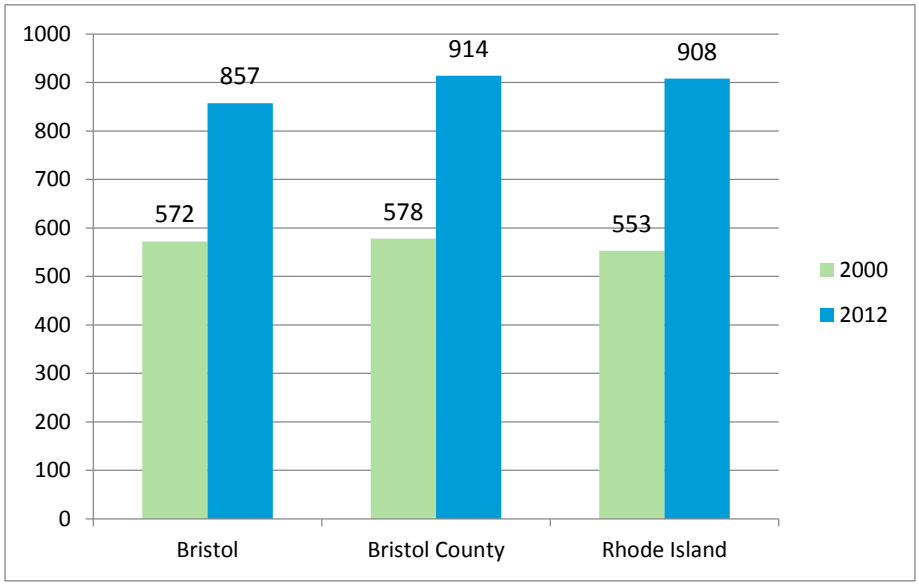
Source: The Warren Group Town Stats

Cost of Rental Housing

In 2000, the median gross rent in Bristol was $572 per month which was slightly less than Bristol County's $578 but more than the state median gross rent of $553. In 2012, median gross rent in Bristol was $857 per month, which was lower than Bristol County at $914 and the state at $908. In comparison, Bristol experienced a gross rent growth

rate of 49.8% from 2000 to 2012, which was lower than the county rate of 58.1% and the state rate of 64.2% (see Figure 2.9).

Figure 2.9: Median Gross Rent, Bristol, County and State



Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

Housing Affordability Indices

The definition of affordability considers both the price of the housing unit and the income of the household living in it. It should be noted that the term "affordable housing" is relative, since it depends on the income of the household. Affordable housing is not the same thing as subsidized housing for persons of low and/or moderate income, although subsidized housing is one type of affordable housing.

The U.S. Department of Housing and Urban Development (HUD) defines affordability as a household spending no more than 30% of its annual income on housing. Families who pay more than 30% of their income for housing are considered to be cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care. This federal definition of affordable housing has become the generally accepted standard. A guideline used by bands when evaluating home mortgage applications is that monthly payments should not exceed 30-33% of household income.

The 2012 ACS estimated that approximately 38.2% of Bristol homeowners spent 30% or more of their household income on

housing costs, which was twice as much as that of year 2000. Similarly, 54.2% of all renters spent more than 30% of their household income on housing costs in 2012, which increased by 20% since 2000. In addition, 25.4% of homeowners spent between 20% - 30% of household income on housing costs in 2012 compared to 18.7% for renters. Another 36.4% of homeowners spent less than 20% compared to 27.1% for renters. These numbers indicate high and increasing housing costs burdens, especially when compared to 2000 housing cost data. See Table 2.5 below for more details.

Table 2.5: Housing Cost as a Percentage of Household Income, Bristol, RI

	Homeowner				Renter			
	2000	**%**	**2012**	**%**	**2000**	**%**	**2012**	**%**
Less than 20 percent	2,157	46.1 %	2,180	36.4 %	993	35.1 %	734	27.1 %
20 to 29 percent	1,133	24.3 %	1,525	25.4 %	590	20.8 %	508	18.7 %
30 percent or more	1,358	19.0 %	2,290	38.2 %	965	34.2 %	1,467	54.2 %

Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates
Note: some percentages do not total 100% due to "not computed" data in US Census.

Economic and Labor Profile

Labor Force and Employment

According to the ACS 2012 5-Year Estimates, there were a total of 19,605 people in the Town of Bristol aged 16 years and over, among whom 12,372 or 63.1% were in labor force. About 11,345 of the 12,275 people who were in civilian labor force were employed, representing a 60.6% employment rate among all people age 16 and over in 2012. The 2000 labor force data indicates that Bristol had a smaller population 16 years and over, yet the percentage of this population within the labor force was higher, at about 63.6% in 2000. In addition, the employment rate among civilian labor force was 95.3% in 2000, which is higher than that of 2012 (see Table 2.6).

Table 2.6: Labor Force and Employment, Bristol, RI

	2000		2012	
	Number	**Percent**	**Number**	**Percent**
Population 16 years and over	18,540	100%	19,605	100%
In labor force	11,785	63.6%	12,372	63.1%
Civilian labor force	11,777	63.5%	12,275	62.6%
Employed	11,229	60.6%	11,345	57.9%
Unemployed	548	3%	930	4.7%
Not in labor force	6,755	36.4%	7,233	36.9%

Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

In terms of occupation, in 2012 about 40% of all workers in Bristol were in management, business, science and arts occupations; 24.5% were in sales and office occupations while 19.1% were in service occupations. There were approximately 1,007 workers or 9% of the total in occupations such as production, transportation, and material moving, and another 864 workers (7.6%) occupations such as natural resources, construction and maintenance (see Figure 2.10).

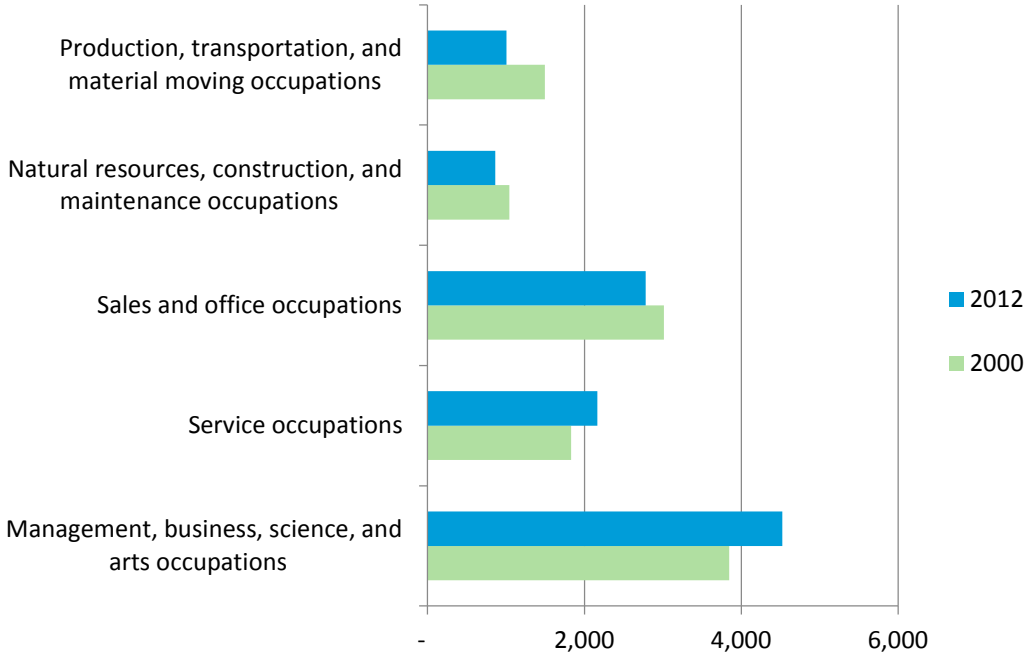
Figure 2.10: Occupation of Bristol Workers in 2012



Source: American Community Survey 2008-2012 5-Year Estimates

When compared to 2000 data, it is clear that from 2000 to 2012 there were fewer workers in occupations such as production, construction and sales, etc. Instead the number of workers in occupations such as service, management, business, etc. increased significantly in Bristol, as manufacturing declined and service-related industries grew across the Town and region (see Figure 2.11).

Figure 2.11: Change of Occupation in Bristol



Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

The 2012 ACS 5-Year Estimates data regarding educational attainment for Bristol's workforce further reveals that 84% of adults in Bristol over age 25 graduated from high school, which represents a lower percentage compared to the county and state average. In addition, 32.9% of people over 25 years old in Bristol had a bachelor's degree or higher, which is 2.1% higher than the state level but 9.3% lower than the county level (see Table 2.7).

Table 2.7: Education Attainment of Population 25+ in Bristol

	Bristol	Bristol County	RI State
High School Graduate or Higher	84.0%	88.6%	84.8%
Bachelor's Degree or Higher	32.9%	42.2%	30.8%

Source: American Community Survey 2008-2012 5-Year Estimates

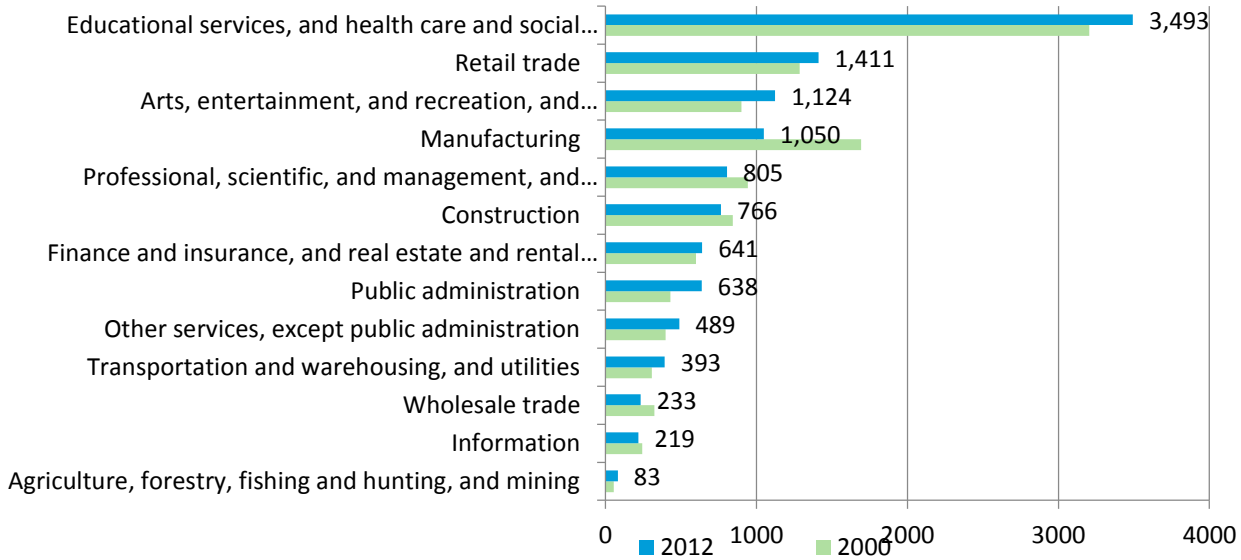
Key Industries in Bristol

Based on information from the 2012 American Community Survey 5-Year Estimates and 2000 US Census, the highest-employing industries in Bristol are as follows and are shown in Figure 2.12 and Table 2.8:

- Educational services and health care and social assistance
- Retail trade
- Arts, entertainment, and recreation, and accommodation and food services
- Manufacturing

Except manufacturing, employment in most major industries has grown more than others over the past decade. Fewer jobs are available today in manufacturing, construction, and wholesale. Most notably, manufacturing commanded close to 1,700 jobs in 2000 but only 1,050 jobs by 2012 – a 62% decrease. There were also decreases in employment in professional, management, and information industries. Jobs in these types of industries usually require higher education levels and more skill training.

Figure 2.12: Growth in Employment by Industry in Bristol, 2000-2012



Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

Table 2.8: Employment by Industry in Bristol, 2000-2012

	2000		2012	
	Number	**Percent**	**Number**	**Percent**
Civilian employed population 16 years and over	11229	100%	11,345	100%
Agriculture, forestry, fishing and hunting, and mining	54	0.5%	83	0.7%
Construction	844	7.5%	766	6.8%
Manufacturing	1,693	15.1%	1,050	9.3%
Wholesale trade	325	2.9%	233	2.1%
Retail trade	1,286	11.5%	1,411	12.4%
Transportation and warehousing, and utilities	307	2.7%	393	3.5%
Information	243	2.2%	219	1.9%
Finance and insurance, and real estate and rental and leasing	600	5.3%	641	5.7%
Professional, scientific, and management, and administrative and waste management services	943	8.4%	805	7.1%
Educational services, and health care and social assistance	3,205	28.5%	3,493	30.8%
Arts, entertainment, and recreation, and accommodation and food services	901	8.0%	1,124	9.9%
Other services, except public administration	398	3.5%	489	4.3%
Public administration	430	3.8%	638	5.6%

Source: US Census 2000 and American Community Survey 2008-2012 5-Year Estimates

Town of Bristol

Rhode Island

Comprehensive Plan, 2016

LOCUS MAP

WOONSOCKET
CUMBERLAND
BURRILLVILLE
NORTH SMITHFIELD
Massachusetts
GLOCESTER
SMITHFIELD
LINCOLN
CENTRAL FALLS
PAWTUCKET
NORTH PROVIDENCE
PROVIDENCE
JOHNSTON
EAST PROVIDENCE
FOSTER
SCITUATE
CRANSTON
BARRINGTON
WARREN
Rhode Island
WEST WARWICK
WARWICK
BARRINGTON
Connecticut
COVENTRY
BRISTOL
WARWICK
EAST GREENWICH
WEST GREENWICH
PORTSMOUTH
TIVERTON
EXETER
NORTH KINGSTOWN
PORTSMOUTH
JAMESTOWN
MIDDLETOWN
LITTLE COMPTON
RICHMOND
HOPKINTON
NARRAGANSETT
NEWPORT
SOUTH KINGSTOWN
N
NARRAGANSETT
CHARLESTOWN
WESTERLY
NEW SHOREHAM

0 3 6 12 Miles

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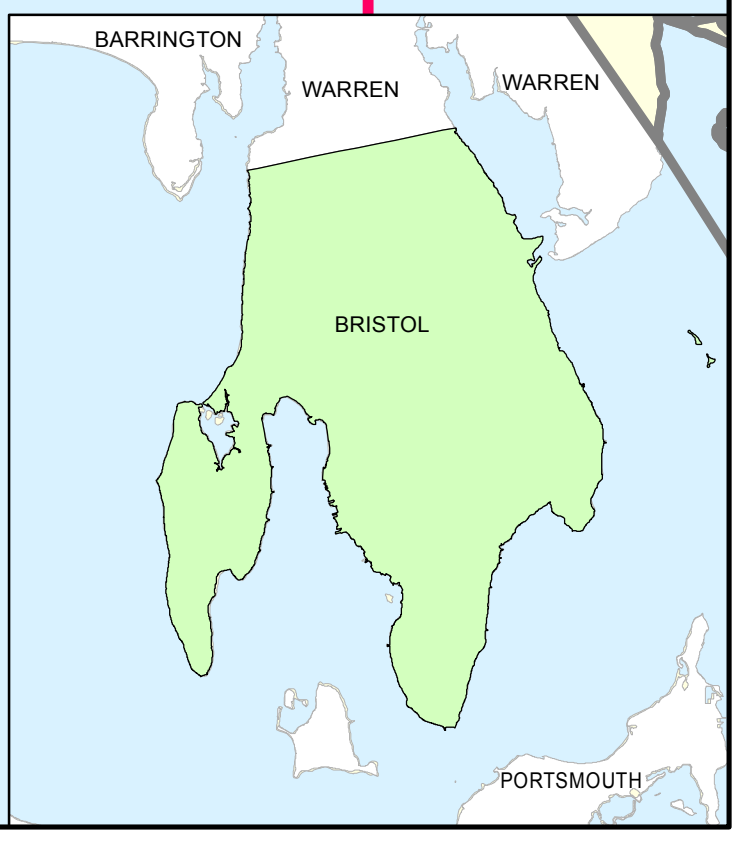

3. Land Use

Introduction and Background

Bristol is a community with character and historic heritage that is recognized and valued by its residents. Through a firm community commitment to environmental quality and historic preservation, the Town has preserved and protected its historic character and sensitive natural lands. The great sense of community, scenic beauty, and livable downtown area are part of what makes up the character of the community, conveys a "small town feeling," and, are the most highly valued features of the Town. Most of the residents are very satisfied with the quality of life in the Town and feel that the quality of life is staying the same or getting better, according to the resident survey conducted as part of the 2008 comprehensive planning process.



Bristol blooms

Downtown is the cultural center, pedestrian oriented and can be seen from the waterfront. Bristol is very fortunate to have a pedestrian

oriented downtown with the Post Office, Library and Town Hall all located in the downtown and within very close proximity.



Downtown sidewalk

The Town library, located on Hope Street next to the Post Office, has been renovated and expanded into a state of the art fully ADA compliant facility. The Town has a strong commitment to keeping the government offices in the downtown as an anchor to the other downtown uses.

There are also two grade school buildings, Colt and Andrews, located within the downtown which have undergone major additions and renovations. The School Committee decommissioned the Byfield and Reynolds Schools and the Town is now leasing space in these two former schools as a way to raise revenue to help with the maintenance of the buildings and as an affordable alternative to assist startup businesses. The Walley School was decommissioned earlier and has not been put back into active use; however, the Town has studied the re-use potential and has a plan that was created by the Roger Williams University Community Partnerships Center for using the building as a community arts center.

The Town also has been committed to keeping residential uses in the downtown. The Stone Harbor Condominiums, which redeveloped the former Premier Thread waterfront mill buildings into 82 residential units, was completed in 2008. The Stone Harbour project included construction of a segment of the Town's Downtown Harbor

Boardwalk from Independence Park to the Thames Street Landing property. There are currently plans in the review process for converting the Robin Rug waterfront mill into a mixed use development with residential uses on the upper floors and with parking and commercial uses on the first floor. The project will also include a major link in the Town's Downtown Harbor Boardwalk which will run from the Town's property at the Armory at Church Street to the Elks Lodge at the end of Constitution Street. The owner of the Robin Rug property has deeded the riparian rights of this property to the Town and there is a concept plan in place to develop a town-owned marina at this location.

There has been a lot of redevelopment activity in the downtown in recent years, some of which was sparked by the Downtown Redevelopment Plan that was adopted in 2005 and required developers of blighted properties to return them to active use – one such property was the former Belvedere Hotel. Work has been completed on the former Belvedere Hotel rehabilitation into residential condominiums with commercial uses on Hope Street, including renovation of the carriage house and a parking deck. Plans are also in process by the same developer to construct additional improvements and a new mixed use building on Thames Street which will wrap around the corner at State Street with residential on the upper floors and commercial on the street.



Downtown waterfront

In 2013, the Town purchased two significant parcels along the west side of the Bristol Harbor in the downtown waterfront area. These

parcels were key since they were the only parcels not in public ownership from the State Street Dock to Church Street Dock. One of the parcels, the Prudence Ferry Dock, will continue to be used for downtown parking and long and short term ferry parking. The Town will also continue to lease the dock for a ferry service which will be run by a new ferry company. The ferry will make daily trips from this dock to Prudence Island and Hog Island which are both part of the Town of Portsmouth. The other parcel is improved with two historic waterfront buildings that were formerly mixed use residential and commercial. The Town received a Certified Local Government grant to commission a study of potential future reuses of these buildings. There is a large amount of open space on this parcel which is also being used by the Town as an area for a dinghy/kayak rack, a small community garden, and an area for the Harbormaster to work on dock repairs.



Town-owned waterfront buildings

Having continuous public ownership will also allow the Town to complete the downtown public boardwalk which will eventually extend from the East Bay Bike Path along the waterfront to Constitution Street. Portions of this boardwalk have been completed over the years through the development process and pedestrians can now walk on the boardwalk from Independence Park to State Street Dock. With the completion of the linkage on the Town's properties, the boardwalk will be a wonderful pedestrian amenity.

Beginning in 2012, the Town has been working to convert the Downtown Naval Reserve Armory into a Maritime Center for visiting boaters. The project started when the Town commissioned the Community Partnerships Center of Roger Williams University to write a business and marketing plan for the project. This project was supported by the Town and received a Boating Infrastructure Grant for implementation which is currently ongoing. The Town continued with a subsequent Community Partnerships Center project for creation of a Master Plan for the Town-owned properties from the State Street Dock to the Downtown Naval Reserve Armory (New Maritime Center). The plan looked at ideas to reuse the two historic waterfront buildings that were recently acquired and ways to link the boardwalk, and included ideas for benches, signage, lighting and landscaping.

In keeping with the pedestrian nature of downtown, this plan recommends that the permanent closing of Bradford Street to vehicular traffic between Hope Street and Center Street be considered to create a new school campus area between the two elementary schools. There is considerable foot traffic between the schools during daytime hours in order to share the use of the gymnasium and the auditorium which up to now has been accommodated by the temporary closing of Bradford Street to traffic. The current situation does little to provide pedestrian safety as there is no place to drop off and pick up the school children without blocking traffic along busy Hope Street (HWY 114) and no place for parents or school busses to park. A protected vehicular drop off area at each end of this park-like campus could be explored to provide a secure place to drop off and pick up the school children without blocking traffic along busy Hope Street.

Concerns expressed by the community as part of the Visioning process for this update, included increased commercial development on Metacom Avenue that results in traffic impacts. In 2007, with a Challenge Grant from Rhode Island Statewide Planning, the Town commissioned a study of Metacom Avenue, "The Metacom Avenue Corridor Management Plan". This study addressed traffic and land use issues and includes recommendations for parking lot connector roadways, linkages through neighborhoods, roundabouts at key intersections, design guidelines, and low traffic generating uses. The Metacom Avenue Corridor Management Plan won the Smart Growth

and New Urbanism Award from the RI Chapter of the American Planning Association in 2008.

The Rhode Island Scenic Roadway Board designated the entire length of Route 114 (Hope Street and Ferry Road) through Bristol and High Street as a Scenic Road and in 2005 a Scenic Roadway Corridor Management Plan was prepared. This plan includes recommendations for preservation of the visual qualities and enhancements to those areas that are in need of improvements along the roadway.

The community visioning process indicated that the residents of Bristol have a desire to retain Bristol's small town character and natural beauty. Part of the strategy to retain the Town's rural character is to implement conservation development techniques for future development. Conservation development is a design strategy to protect and preserve onsite and offsite natural resources from development impacts. As development sites are planned, topography, soils, vegetation, natural drainage patterns, and other sensitive or unique landscape features are considered as important resources deserving of protection and enhancement. Stormwater best management practices (BMPs) are also integrated into the development site, with the primary goal of protecting and restoring natural hydrology, preventing flooding, and protecting habitat and water quality.



Extreme high tide at the East Bay Bike Path

Conservation development is intended to be density neutral (except where a density bonus is offered). Rhode Island law requires that the same number of lots are built in a conservation subdivision as would be built in a conventional subdivision. Thus, a conservation subdivision maintains the same level of density as a conventional subdivision. Conventional lot-by-lot subdivisions spread development evenly throughout a parcel without consideration to environmental or cultural features.

Density bonuses can be offered only to promote a mix of housing types, reduced roadway pavement, and to achieve certain public purposes such as preservation of open space, historical and cultural resources; provision of recreation amenities; and necessary housing alternatives. Density bonuses are not intended in areas that have no public water or sewer facilities.

The Town's land use pattern has not changed substantially since the 2009 Update. However, much progress has been made in moving forward with implementation of actions from the 2009 plan.

In 2010, the Town adopted the recommended Metacom Mixed Use Zone for parcels along Metacom Avenue. This zone has been applied on two properties to create a new mixed use zone development with retail/office uses on the first floor and up to ten residential units above with a mix of market rate and affordable units. This project received Master Plan approval from the Planning Board and is still in the permitting process. There have also been 3 development projects reviewed on Metacom Avenue since design guidelines were adopted and each of these projects have installed sidewalks and street trees along the street which further implements the Metacom Avenue Corridor Management Plan.

The Town Council also approved zoning map change petitions for two properties on the north side of Tupelo Street. Both of the zoning map changes were consistent with the Comprehensive Plan Update of 2009 to encourage more industrial uses in that area. One of the properties was a former lumber yard that had been vacant for many years and fell into a blighted condition. The property has been rehabilitated with the construction of two new incubator buildings that are occupied by a variety of manufacturing and industrial uses including sail makers and boat builders. This revitalization has been a

considered a huge success and a benefit to the Town. The other property that was the subject of the zone map change to manufacturing is owned by Tri-Mack, one of Bristol's largest employers. The change facilitated construction of a large addition on the existing building for expansion of their facility.

Bristol is also home to the main campus, President's Residence, and off-campus housing for Roger Williams University. The main campus is located in the southeastern area of Town and serves as part of the gateway into Town from the Mount Hope Bridge. There has been recent expansion of the campus including new dormitories, a water tower, and a sailing center which is currently being constructed.

Another important land use consideration is the potential impact of a changing climate and the likely sea level rise associated with it. Rhode Island as a state has experienced s significant trend over the past 80 years towards a warmer and wetter climate region. Trends are evident in annual temperatures, annual precipitation, and the frequency of intense rainfall events. Inland, these trends have combined to produce an increase in river flooding. Some locations are experiencing more floods while other locations are seeing an increase in the severity of floods.[1] In addition to the threat of chronic flooding, Bristol as a low-lying, coastal community is particularly vulnerable to further sea level rise in the context of global climate change. Understanding the principles of climate change and sea level rise, as well as assessing Bristol's vulnerability to sea level rise, should be a critical emphasis in public and private practices. This not only includes emphasis on more effective stormwater management, flood control and erosion management, but also acknowledgement of the importance of wetlands and floodplains as both habitat and scenic resources and necessary protection for vulnerable land.

Other the other hand, the Town should provide information to contractors and homeowners on risks of building in hazard-prone areas and inform builders and homeowners of the benefits of building and renovating structures to current standards. The Town will also promote and support enforcement of the latest policy revisions relative to climate change and sea level rise and distribute literature related to mitigation techniques including information from the

[1] Overview of a Changing Climate in Rhode Island, RI Executive Climate Change Coordinating Council, 2014

institute of Business and Home Safety, retrofit methodology (FEMA's library of Technical Bulletins), grant/loan sources, and insurance options.

Building resiliency to sea level rise and storm events of increasing frequency and intensity has essentially been incorporated in various aspects of this comprehensive plan.

Maps 2, 3, and 4 graphically present the most important policies by plan element and by geographic part of town. The geographic recommendations are shaped around the planning areas defined for the plan. Those areas are shown in Map 1 – Planning Areas. Below is a list of Future Land Use designations, as shown in the Future Land Use Map, including a description of the preferred uses for each category.

Designations	Description
Residential – Low Density	Intended for very low density areas comprised of agricultural uses and single household detached structures. The purpose of this very low residential density zone is to ensure both that areas of town without adequate infrastructure are not developed beyond their capacity and to preserve natural, historical and cultural resources of the town.
Residential – Medium Density	Intended for medium density residential areas previously lacking infrastructure and already developed to this density, or currently undeveloped and lacking infrastructure, comprised of single household detached structures.
Residential – High Density	Intended for high density residential areas comprised of single-household, two-household and multi-household structures where public sewer and public water are required.
LB Limited Business	Intended for mixed use including neighborhood commercial areas that primarily serve local neighborhood needs for convenience, retail services and professional office establishments, as well as high density multi-household residential use.
GB General Business	Intended for commercial areas that serve town-wide and regional commercial needs for retail, services, and professional office establishments.

D Downtown	Intended for the preservation of downtown commercial areas.
Mixed Use Residential and Commercial	Intended for designating key areas along the Metacom Avenue (Rt. 136) corridor and nearby nodes for focused development or redevelopment in dense mixed-use zones to help create a sense of place and order and encourage the expansion of business use areas while creating vibrant, walkable affordable neighborhoods well served with appropriately scaled retail, services, and other commercial development.
M Manufacturing	Intended for general industrial uses that accommodate a variety of manufacturing, assembly, storage of durable goods and related activities.
OS Open Space	Intended for the preservation of open space in the town.
W Waterfront	Intended for mixed use residential, commercial, and limited industrial use along the downtown waterfront with an emphasis on preservation, economic development, recreation, and open space.
E-I Educational institutional	Intended for college/university facilities to be used in a planned manner while protecting surrounding cultural, historic and environmental resources.
HPC Historic Preservation and Conservation	Intended to preserve and protect the existing uses of historic properties of importance to the town; and to allow them to be used in a planned manner and permit certain minimal additions to those existing uses; while protecting and preserving the cultural, historic and environmental resources of the property and the town.
Public / Institutional	Intended to identify and protect municipal buildings and properties, including parks, schools, cemeteries, and other public facilities
Agricultural	Intended to promote and protect active agricultural properties.
Urban Rehab and Waterfront PUD	Intended to encourage the rehabilitation and reuse of deteriorated, underutilized and inefficient historic and/or nonconforming structures of conservation concern to the town.
PUD Planned Unit Development	Intended to permit multiple residential structures and associated infrastructure to be developed in a planned manner while also protecting and preserving the cultural, historic and environmental resources of the property.

As shown in Map 5D, there are a number of discrepancies between FLUM and existing zoning districts, including:

Mixed Use Affordable Residential and Commercial:

- Metacom Avenue at Tupelo Street and Broadcommon Road. Existing parcels are zoned GB, LB or M and are ripe for redevelopment consistent with Metacom Avenue Corridor Management plan and proposed MMU zoning.
- Metacom Avenue at Gooding Avenue. Existing parcels are zoned GB and several are ripe for redevelopment where appropriate consistent with Metacom Avenue Corridor Management plan and proposed MMU zoning.
- South side of Gooding Avenue in vicinity of Naomi Street and Broadcommon Road. Existing parcels are undeveloped and zoned GB.
- Metacom Avenue in vicinity of Bayview Avenue, Franklin Street, and Minturn Farm Road. Existing parcels are zoned GB, M or LB and several are ripe for redevelopment where appropriate consistent with the Metacom Avenue Corridor Management plan and proposed MMU zoning.
- South side of Mt. Hope Avenue. Existing parcel is zoned GB and is ripe for redevelopment consistent with Metacom Avenue Corridor Management plan and proposed MMU zoning.

Agricultural:

- East side of Hope Street south of White Tail Drive. Existing agricultural parcel that is currently zoned R-15.
- West side of Poppasquash Road at Clam Shell Road. Existing agricultural parcel that is currently zoned R-40.
- East side of Metacom Avenue north of Kickemuit Road. Several existing agricultural parcels that are currently zoned R-15.

- East side of Metacom Avenue south of Kickemuit Road and Tina Court. Existing agricultural parcels that are currently zoned R-15.
- East side of Metacom Avenue at Woodlawn Avenue. Existing agricultural parcel that is currently zoned PUD.



Farm on Metacom

Open Space:

- South of Tupelo Street and Broadcommon Road. Existing Town-owned golf course currently zoned GB and M.
- South of Gooding Avenue. Existing Town-owned woodlands and wetlands currently zoned GB.
- North of Hampden Road. Existing Town-owned pond and recreation area currently zoned R-10.
- East of Jenny Lane. Existing Town-owned playground currently zoned GB.

Public / Institutional:

- All Town-owned public school properties including Rockwell School, Mt. Hope High School, Guiteras Elementary School,

Colt-Andrews Elementary School, Oliver School administration building, and the former Reynolds School.



Completed bioretention project at Guiteras Elementary School

- Town-owned government facilities including four fire stations, police station, Burnside Building, town hall, community development office, public library, Quinta-Gamelin Community Center, public works facility, wastewater treatment facility, and transfer station / former landfill.



Burnside Building



Quinta Gamelin Community Center

- The Town Common, including former Byfield School and Walley School buildings, the Bristol Statehouse, and Baptist Church.

Manufacturing:

- North and south sides of Peter Road. Seven properties that are currently zoned GB but land use is more typical of M zone.

Statement of Goals and Policies

Land use planning and management, in a sustainable manner that respects Bristol's environment and unique character for present and future generations, is paramount and is intended to support all other comprehensive planning goals of the Town of Bristol.

Based on the critical issues described in the Introduction and the overarching goal stated above, this section presents the goal and policies developed by the Town of Bristol to guide its land use planning. This goal encompasses goals expressed in the other elements of this plan.

Goal 1. **Promote land use patterns that are sensitive to the Town's character and assets, recognize the Town's resource constraints, are economically sound, and facilitate smart growth to build capacity in sustainability and climate resiliency in Bristol.**

Policies to implement Goal 1:

A. Protect Bristol's natural landscape and resources for present and future generations.

B. Respect the historic resources that link Bristol's present with Bristol's past and use these resources as guidelines for managing future growth.

C. Plan for both passive and active recreation, conservation, and open space, using a comprehensive approach and giving consideration to development trends and to the demands of the community.

D. Maintain a strong tax base, favorable tax rate and identify alternative revenue sources.

E. Maintain the character of Bristol and make sure that new development does not adversely impact the integrity of the Town.

F. Embrace Smart Growth principles, conservation development zoning and encourage sustainability of our resources in all land use decisions made by the Town of Bristol.

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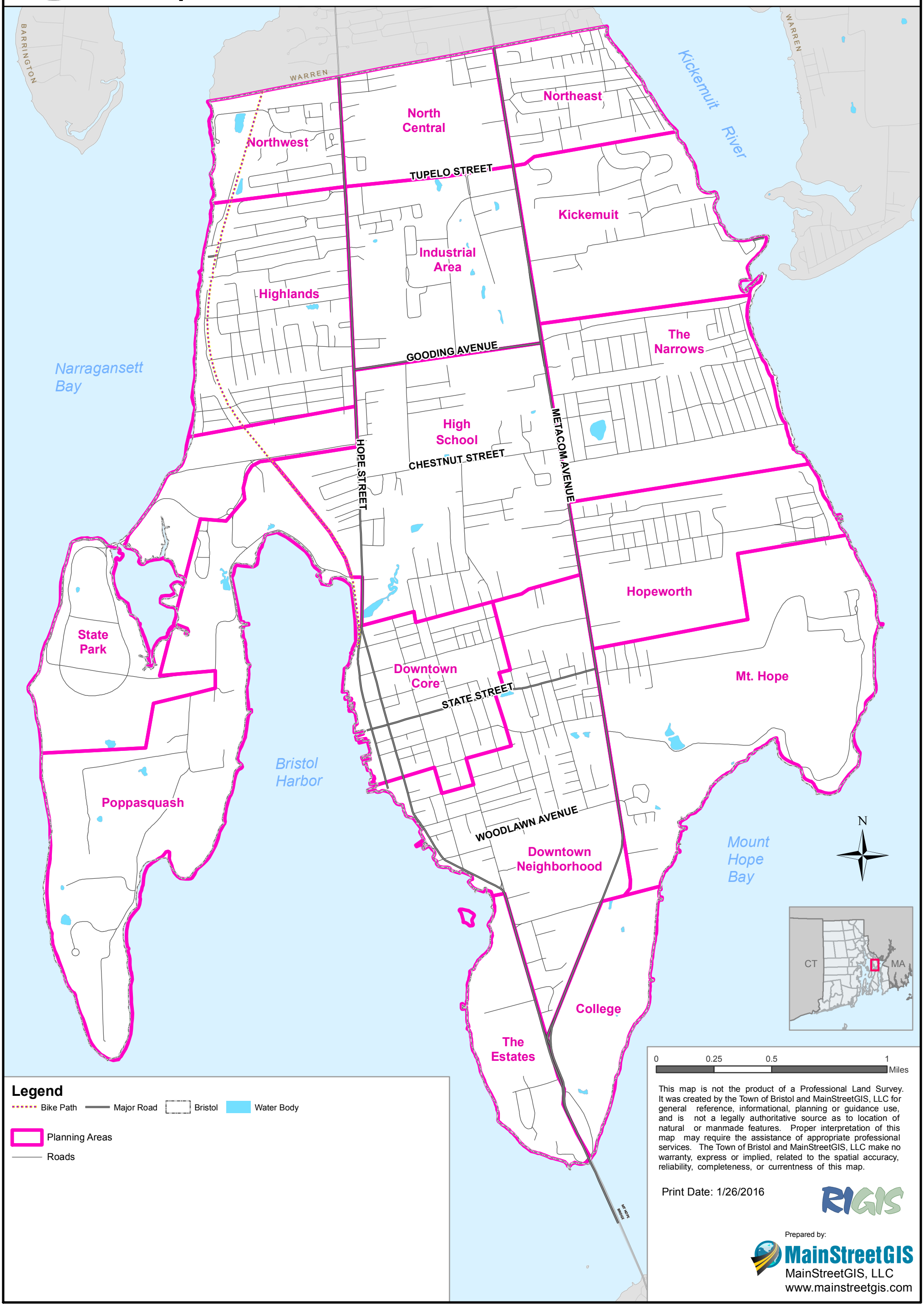
Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 1

Planning Areas



Legend

- Bike Path
- Major Road
- Bristol
- Water Body
- Planning Areas
- Roads

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Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 2

East Shore Planning Areas and Land Use Objectives

NORTHEAST

1. Protect and maintain the residential and commercial area

KICKEMUIT

1. Open space protection as 1st objective
2. Protect significant farmland
3. Implement Metacom Avenue Corridor Management Plan

THE NARROWS

1. Protect residential character of the area
2. Improve North/South movement within the area through neighborhood connections
3. Monitor veteran's home for future use
4. Drainage Improvements

HOPEWORTH

1. Protect residential character
2. Examine potential use of old former landfill

MT. HOPE

1. Protect open space as first objective
2. Protect cultural and historic resources

COLLEGE

1. Expansion of facilities at Ferry Road campus through the Educational Institution Master Plan process
2. Implement Metacom Avenue Corridor Management Plan

BARRINGTON
WARREN
WARREN
Kickemuit River
Northeast
Kickemuit
The Narrows
Hopeworth
Mt. Hope
College
TUPELO STREET
GOODING AVENUE
CHESTNUT STREET
STATE STREET
WOODLAWN AVENUE
HOPE STREET
METACOM AVENUE
Narragansett Bay
Bristol Harbor
Mount Hope Bay
MT HOPE BAY
PORTSMOUTH
HOG ISLAND
SOUTH PRUDENCE

N

CT MA

0 0.325 0.65 1.3 Miles

Legend

Bike Path — Major Road — Bristol — Water Body

Planning Areas

Roads

East Shore Planning Areas

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Rhode Island

Comprehensive Plan, 2016

MAP 3

Central Planning Areas and Land Use Objectives

BARRINGTON

WARREN

WARREN

Kickemuit River

North Central

TUPELO STREET

Industrial Area

GOODING AVENUE

Narragansett Bay

High School

HOPE STREET

CHESTNUT STREET

METACOM AVENUE

Downtown Core

STATE STREET

Bristol Harbor

WOODLAWN AVENUE

Downtown Neighborhood

Mount Hope Bay

The Estates

NORTH CENTRAL

1. Pursue development of a walking and bike path
2. Protect wetlands
3. Use conservation development to make open space protection

INDUSTRIAL AREA

1. Maximize and protect interior land use for industrial use
2. Mixed commercial along southern and eastern borders
3. Wetland restoration in open space

HIGH SCHOOL

1. Continue basic land use patterns
2. Protect Silver Creek
3. Protect residential character of neighborhood
4. High school drainage improvements

DOWNTOWN CORE

1. Maintain historic district protection
2. Rehab and re-use historic buildings including BIP and decommissioned schools
3. Town Common landscape and drainage improvements
4. Continue phased improvements to State Street Dock

DOWNTOWN NEIGHBORHOOD

1. Maintain mixed use
2. Establish use guidelines for old building re-use

THE ESTATES

1. Seek development rights
2. Assist owners in land use planning
3. Monitor large properties for future use changes

N

CT MA

0 0.325 0.65 1.3 Miles

Legend

Bike Path — Major Road — Bristol — Water Body

Planning

Roads

Central Corridor Planning

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Rhode Island

Comprehensive Plan, 2016

MAP 4

West Shore Planning Areas and Land Use Objectives

BARRINGTON

WARREN

WARREN

Kickemuit River

Northwest

TUPELO STREET

NORTHWEST

1. No significant change anticipated
2. Protect residential character
3. Neighborhood connections

THE HIGHLANDS

1. Protect residential character
2. Neighborhood connections
3. Potential for National Register designation

Highlands

GOODING AVENUE

Narragansett Bay

STATE PARK

1. Protect the park use and open space
2. Maintain sports complex and town beach
3. Continue improvements to Quinta-Gamelin Community Center

HOPE STREET

CHESTNUT STREET

METACOM AVENUE

State Park

STATE STREET

Bristol Harbor

Poppasquash

WOODLAWN AVENUE

Mount Hope Bay

POPPASQUASH

1. Discourage high density development

N

CT

MA

MT HOPE BAY

PORTSMOUTH

HOG ISLAND

BRITTON NECK

0 0.325 0.65 1.3 Miles

Legend

Bike Path — Major Road — Bristol — Water Body

Planning Areas

Roads

West Shore Planning Areas

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Rhode Island

Comprehensive Plan, 2016

MAP 5A

Existing Land Use 2011

BARRINGTON

WARREN

Kickemuit River

WARREN

TUPELO STREET

GOODING AVENUE

CHESTNUT STREET

HOPE STREET

METACOM AVENUE

STATE STREET

WOODLAWN AVENUE

Narragansett Bay

Bristol Harbor

Mount Hope Bay

MT HOPE BRIDGE

N

CT

MA

0 0.25 0.5 1 Miles

Legend

Bike Path | Major Road | Bristol | Water Body

Roads

Parcels

Undeveloped Land

Land Use RIGIS 2011

- Beaches
- Cemeteries
- Commercial
- Commercial/Industrial Mixed
- Industrial
- Institutional (schools, hospitals, churches, etc.)
- Agriculture
- Developed Recreation
- Low Density Residential
- Medium Density Residential (1 to 1/4 acre lots); Medium High Density Residential (1/4 to 1/8 acre lots)
- High Density Residential (<1/8 acre lots)
- Vacant Land
- Waste Disposal
- Water
- Water and Sewage Treatment
- Wetland

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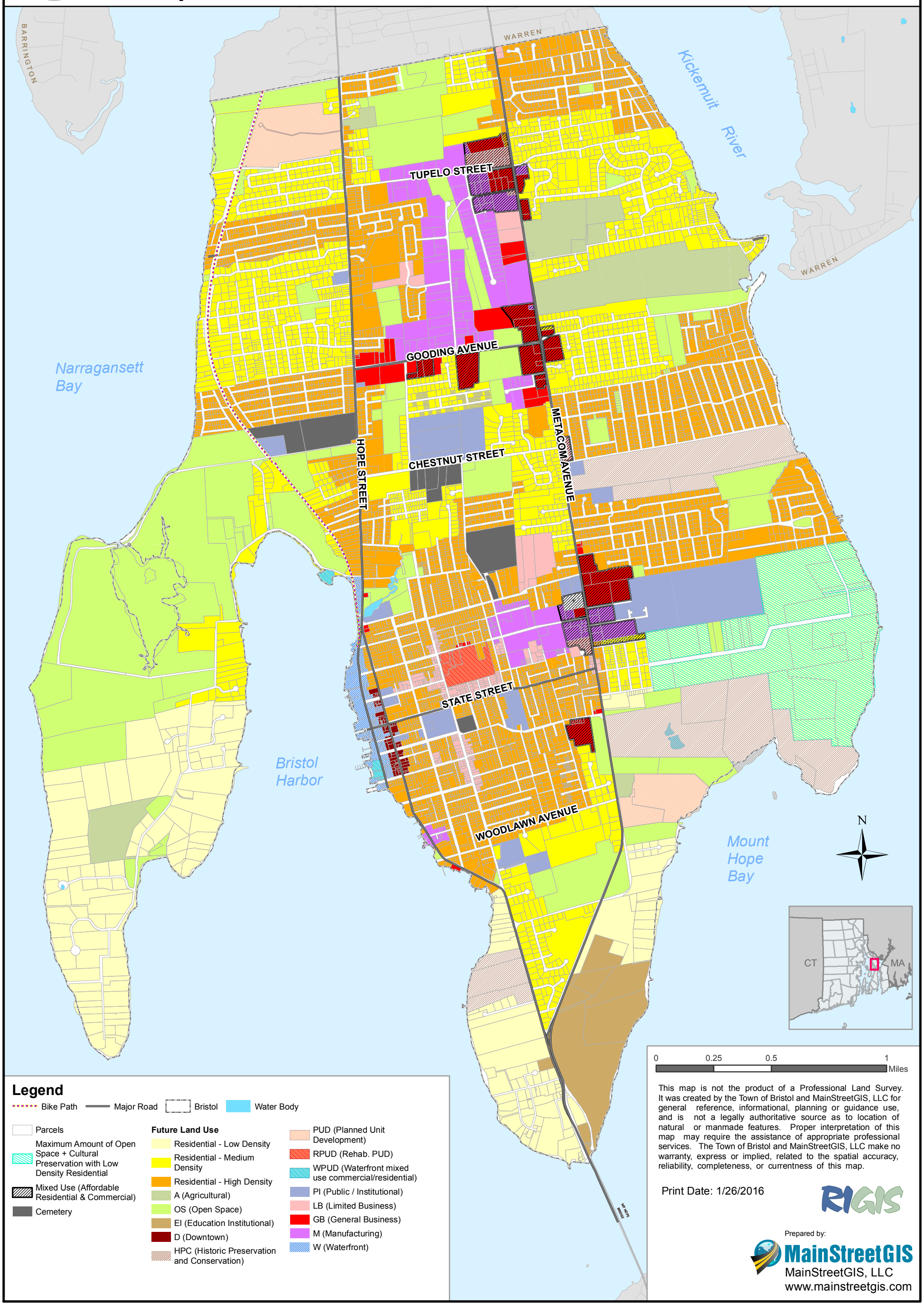
Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 5B

Future Land Use



Legend

Bike Path | Major Road | Bristol | Water Body

Parcels

Maximum Amount of Open Space + Cultural Preservation with Low Density Residential

Mixed Use (Affordable Residential & Commercial)

Cemetery

Future Land Use

- Residential - Low Density
- Residential - Medium Density
- Residential - High Density
- A (Agricultural)
- OS (Open Space)
- EI (Education Institutional)
- D (Downtown)
- HPC (Historic Preservation and Conservation)
- PUD (Planned Unit Development)
- RPUD (Rehab. PUD)
- WPUD (Waterfront mixed use commercial/residential)
- PI (Public / Institutional)
- LB (Limited Business)
- GB (General Business)
- M (Manufacturing)
- W (Waterfront)

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Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 5C

Existing Zoning

BARRINGTON
WARREN
WARREN
Kickemuit River
Narragansett Bay
Bristol Harbor
Mount Hope Bay
TUPELO STREET
GOODING AVENUE
CHESTNUT STREET
HOPE STREET
METACOM AVENUE
STATE STREET
WOODLAWN AVENUE
MT HOPE BRIDGE
N
CT
MA

Legend

Bike Path
Major Road
Bristol
Water Body

Original Zone Change Conditions Apply
Bristol Historic District
Route 136 (Metacom Avenue) Overlay
Roads
Parcels
Resource Conservation and Creative Development (RC & CD) Overlay

Zoning

- R-6 (Residential 6,000 sq. ft. lot size)
- R-8 (Residential 8,000 sq. ft. lot size)
- R-10 (Residential 10,000 sq. ft. lot size)
- R-10SW (R-10 w/ sewer, water)
- R-15 (Residential 15,000 sq. ft. lot size)
- R-20 (Residential 20,000 sq. ft. lot size)
- R-20SP (R-20 w/ Conditions)
- R-40 (Residential 40,000 sq. ft. lot size)
- R-40-W (R-40 w/ Water)
- R-80 (Residential 80,000 sq. ft. lot size)
- HPC (Historic Preservation and Conservation)
- OS (Open Space)
- EI (Education Institutional)
- WPUD (Waterfront PUD)
- PUD (Planned Unit Development)
- RPUD (Rehab. PUD)
- LB (Limited Business)
- W (Waterfront)
- D (Downtown)
- MMU (Metacom Mixed Use)
- GB (General Business)
- M (Manufacturing)

0 0.25 0.5 1 Miles

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Print Date: 1/26/2016

RIGIS

Prepared by:

MainStreetGIS

MainStreetGIS, LLC

www.mainstreetgis.com

Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 5D

Inconcistencies and Discrepancies

BARRINGTON

WARREN

WARREN

Kickemuit River

TUPELO STREET

GOODING AVENUE

Narragansett Bay

HOPE STREET

CHESTNUT STREET

METACOM AVENUE

STATE STREET

Bristol Harbor

WOODLAWN AVENUE

Mount Hope Bay

MT HOPE BRIDGE

N

CT

MA

Legend

Bike Path

Major Road

Bristol

Water Body

Mixed Use (Affordable Residential & Commercial)

Parcels

A (Agricultural)

OS (Open Space)

PI (Public / Institutional)

M (Manufacturing)

0 0.25 0.5 1 Miles

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Print Date: 1/26/2016

RIGIS

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4. Housing

Introduction and Background

The Town of Bristol is home to a cultural and economically diverse population. The quality of life in Bristol attracts homebuyers from across the region. The Town's community spirit encourages pride and long-term commitment to the community. Bristol's sense of pride is strong and people take pride in their homes and neighborhoods. In 2010, the Town was named one of the ten best places to raise a family by Family Circle Magazine.

Between 2009 and 2013, there were 77 new single family residential units and two multi-family units (a three-family and a two-family) built. This rate of housing growth represents a decrease of 1/3 from the 2009 Comprehensive Plan which reported 115 new single family units. There were no condominiums built in this time frame which is indicative of the economy during this period. In 2012, the Building Department began tracking the estimated cost of construction and in that year it was reported at $2,323,500 and $3,798,825 in 2013. This is an increase of almost 40% in the value of construction.

The Town's population is also growing older. Having affordable housing is important in order to keep the younger generations in Town, to help provide the Town services such as Town's volunteer Fire Department; and, to have a strong workforce. The Town also has to provide services and amenities so that Bristol's older population can age in place. What is good for the growing elderly population is actually good for all of the residents, such as making streets more pedestrian friendly and the ability to safely walk. Bristol's walkability score is 65 on walkscore.com, which means that it is somewhat walkable and some errands can be accomplished on foot. The AARP Public Policy Institute conducted a study as to what older adults want to have close to home. The top things are: a bus stop, grocery store,

park, and drug store/pharmacy. Bristol prides itself on having a pedestrian friendly, walkable downtown. However, more needs to be done to connect neighborhoods to the downtown, especially those on the east side of Metacom Avenue and along Metacom Avenue. Using funds for a voter-approved bond in 2004, the Town has been upgrading and replacing existing sidewalks in many neighborhoods. Development projects along Metacom Avenue have also been installing new sidewalks as part of the Town's requirements.



Residential neighborhood in Bristol

In May 2013, the Town was entered into the Community Rating System of the National Flood Insurance Program. The Community Rating System provides a discount to all property owners who maintain flood insurance as required by the National Flood Insurance Program. The discount is based on a scoring for eligible activities to educate residents and mitigate damage from flooding including brochures, posting information on the Town's web site, and preservation of open space that is in the floodplain. The Town's discount is currently 10%. The Building Official and the Director of the Department of Community Development became Certified Floodplain Managers in 2013. A Certified Floodplain Manager is trained on the requirements for construction in the flood plain which is important in the review of permits for construction in the flood zone. FEMA has also developed new floodplain mapping for the

Town which was finalized in July 2014. Along with this new flood plain mapping, the Town of Bristol has also adopted a companion Flood Zone Ordinance Update. The adoption of the Flood Zone Mapping and Ordinance allows the Town to continue to participate in the National Flood Insurance Program which means that all property owners in the Town continue to be eligible to purchase flood insurance for their property.

Assessment of Housing Needs

Current Housing Inventory (Range of housing unit sizes and types) – Housing in the Town is predominately single-family detached dwellings however there are many neighborhoods in the downtown and surrounding area that have multi-family units.





Housing in Bristol

Table 4.1: Types of Housing Units in Bristol, RI, 2000 and 2012 ACS 5-Year Estimates

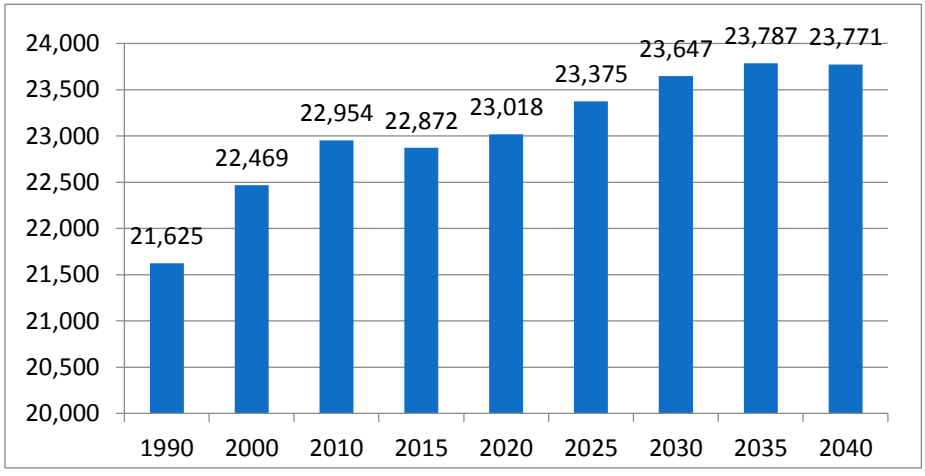
Type of Structure	2000 Units	2008-2012 Est		% Change 2000-2012
		Number	Percent	
Single-family (detached)	5,293	5,980	62.1%	13.0%
Single-family (attached)	361	257	2.7%	-28.8%
Two-family Units	1,175	1,074	11.2%	-8.6%
Three or four units	987	1,138	11.8%	15.3%
Five to nine units	476	597	6.2%	25.4%
Ten of more units	408	579	6.0%	41.9%
Mobile Home	5	0	0.0%	-100.0%
Total Units	8,705	9,625	100.0%	10.6%

Source: American Community Survey 2008-2012 5-Year Estimates

Population Projections

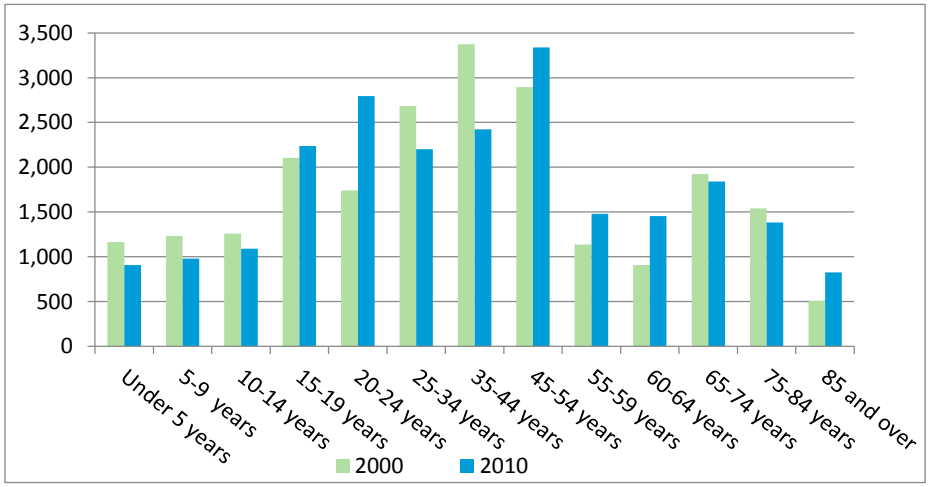
According to the Rhode Island Population Projections from 2010 – 2040, Technical Paper 162, dated April 2013, the population in the Town was forecasted at 22,866 for 2015 and will increase slightly in 2020 to 23,009. Given the census data, the population is expected to rise for those in the 54 and older category as the baby boomers age.

Figure 4.1: Historic and Projected Population Growth in Bristol, RI



Source: US Census, Rhode Island Statewide Planning Program Population Projection

Figure 4.2: Distribution of Age, Bristol, RI



Source: US Census 2000 and 2010

Housing Needs

The US Department of Housing and Urban Development's (HUD) Comprehensive Housing Affordability Strategy (CHAS) database provides information on the housing needs. According to the CHAS data tabulations from 2006-2010, of the 8895 total households, 3310 (37%) pay more than 30% of their income to housing. The CHAS data also indicates that 3120 households are low income with approximately half rental (1735) and half home ownership (1385).

Based on the population projections and the current housing inventory, there will a need for additional housing for seniors and/or provisions for more residents to age in place.

Affordable Housing

Housing Affordability

The Town of Bristol has 9,015 total year round housing units[1] with 535 qualifying as long-term affordable. Of the 535 units, 359 are reserved for elderly, 100 are long term affordable units reserved for family and 76 are reserved for special needs.

[1] The year round housing units data from the 2010 US Census represents the latest decennial census of the Town of Bristol for the purpose of affordable housing discussion.

RI Housing's report on meeting the 10% affordable housing target indicates that the Town has made good progress toward reaching that goal with 5.96%. The Town would need an additional 367 units to meet the 10% threshold established by Rhode Island's Low-Moderate Income Housing Act of 2004.

Bristol's housing market has been hit with the downturn in the economy. Between 2010 to the present, there were 42 bank-owned properties. Though the Town's affordable dwellings increased by 0.7% from the 2008 count, the Town lost two affordable units due to foreclosure in 2012. While attempts were made to have the Town's local affordable housing organization, East Bay Community Development Corporation, purchase the dwellings, an agreement could not be reached and ultimately the bank took over the mortgages and the affordable housing deed restriction was lost. Another unit of affordable housing will also be lost in the near future with the expiration of the affordable restriction.

Households are considered cost burdened if they pay more than 30 percent of their gross income for housing costs, which include rent, utilities and fuel costs for renters. They include mortgage or purchase contract payments, property taxes, and hazard and mortgage insurance for homeowners. As may be expected, renter households are more likely to be cost burdened than owner occupied households.

In the 2013 Housing Works RI publication "Housing Fact Book", the Town of Bristol's median home price was $280,000 in 2013 which is approximately a 20% increase over the last ten years. The income needed to afford this was $80,416; however, the median household income in Bristol was $60,934 in 2012. A 2-bedroom rental average rent is $1,132 with an income needed of $45,280 to afford this rent. The average private sector wage in Bristol is $39,104 and the Median Renter Household Income for the area is $31,740. Thus, there are significant gaps between the income required to own or rent in Bristol when compared to the median household income. The report indicates some examples of median wages from different jobs as follows:

- Registered Nurses - $68,367
- Customer Service Reps - $31,707

- General Office Clerks - $29,270
- Home Health Aids - $24,317
- Retail Salespersons - $20,924
- Wait Staff - $17,277

This speaks to the affordability gap in Bristol which is approximately $13,540 for renters and $19,492 for homeowners.

The first Habitat for Humanity house in Bristol is currently being constructed which will be deed restricted as an affordable unit.

Affordable Housing Organizations

Non-Profit

The Town recognizes the East Bay Community Development Corporation (East Bay CDC) as the nonprofit organization to address the Town's affordable housing needs and the only monitoring agent in the East Bay. This CDC is based in Bristol and had its roots there but has grown to a regional affordable housing provider. The East Bay CDC owns and manages Franklin Court Independent Living with 96 units of low income senior housing and Franklin Court Assisted Living, with 68 affordable apartments. Both of these are located in the former Kaiser Mill Complex. Franklin Court Assisted Living is one of only two assisted living facilities in Rhode Island that can offer Medicaid waivers to low income elderly needing financial assistance. There is currently a 4-year wait list for senior units in the Franklin Court Independent Living.

In addition, the East Bay CDC owns and manages 170 apartment units in multiple scattered sites throughout Bristol, Warren, and Barrington. In addition to providing this affordable housing, the East Bay CDC has also helped the Town and bettered the neighborhood by removing blighted buildings in the Wood Street neighborhood. The East Bay CDC recently completed a 19-unit building at Metacom Avenue, known as "Kane's Way", which is 100% affordable for families; all but one of these units has sold.

Public

The Bristol Housing Authority oversees Benjamin Church Manor which is rented to persons who are 62 years of age or older whose

income does not exceed $40,450 for one person and $46,200 for two persons as of 2014 data. Persons who apply and are eligible have their name placed on the waiting list with preference given to residents of Bristol. According to the Executive Director, there are 85 people currently on the waiting list. The Bristol Housing Authority is currently moving forward with plans to build additional housing at the Benjamin Church property which will be for seniors 62 years of age and older. There are a total of 194 units that were developed over time. Phase 1 with 150 units was constructed in 1969, Phase 2 with 30 units was constructed in 1979 and Phase 3 with 40 units was constructed in 1982. The Housing Authority constantly maintains and upgrades the property. In 2011 and 2012, vinyl siding, new doors and new windows were added to eight buildings housing 150 units. In 2013, most of the sidewalks were replaced. In 2013, state-of-the-art wireless security cameras that meet Police Department recommendations were added to all buildings. In 2014, major electrical upgrades were made to buildings S-AA. In 2015, the Housing Authority intends to upgrade the fire panel and the fire alarm system with a state-of-the-art wireless system. The Bristol Housing Authority has been recognized by HUD as a "High Performer". The Authority is scored on a physical inspection of the property, financial management, along with other items and in 2014, the score was 100%.

The Bristol Housing Authority also administers the Housing Choice Voucher (Section 8) program, which provides federal assistance for people to live in private apartments. The program currently has 156 vouchers being used in Bristol and there are approximately 750 people on the waiting list. This program is for the very low-income residents – federal guidelines for income and rents are:

Income	Rents
$15,200 for one person	$822 for one bedroom with utilities
$17,350 for two people	$1,004 for two bedrooms with utilities
$19,790 for three people	$1250 for three bedrooms with utilities

The Housing Choice Voucher Program was scored at 100% on performance and management. This scoring system is called the Section Eight Management Assessment Program (SEMAP). The BHA has consistently scored 100% for 15 years in a row.

The Bristol Housing Authority also leases the historic Benjamin Church building to the Town of Bristol for the Senior Center. This building, listed on the National Register of Historic Places in 1971 has always served senior citizens (except for a brief period between 1968 and 1972). The Senior Center has operated for more than 40 years. It offers many social, wellness and educational opportunities for adult members 55 and over. The Bristol Housing Authority's partnership with the Bristol Senior Center has enabled both organizations to better service the seniors of Bristol.

Affordable Housing Policy

In an effort to clarify Bristol's position on affordable housing, the following policy statement was developed for the 2009 Comprehensive Plan and re-affirmed with this plan update. Bristol supports the development of housing that helps to meet the needs of all Bristol's "local residents". Bristol is also willing to do its share to assist in meeting the housing needs of the regional population, but within the context of a broad, cooperative, fair share policy that involves all of Bristol's neighboring Towns. Bristol has great concerns over pursuing housing strategies based on past theories of public housing provisions, specifically the development of large projects for specific socioeconomic groups.

Bristol is a town that has always had a rich mixture of housing types blended together within the downtown. The outlying single family neighborhoods have developed in a variety of lot sizes and development patterns. Bristol has never created large multifamily developments that then deteriorated causing yet more problems for residents and non-residents alike. Bristol shall not pursue that strategy in the future. In order to guide affordable housing development in Bristol, the following development standards were adopted.

Affordable housing in Bristol shall:

1. Be integrated with market price units.
2. Be dispersed throughout town rather than being congregated in specific areas or projects. It shall be developed in areas that are suitable for any type of housing development.

3. Be designed so as to physically blend with surrounding market price units in terms of height, massing, site design and architectural treatment.
4. Be designed to give the residents and neighbors' pride in their homes.
5. Be developed to give residents the opportunity to share in the ownership of at least some of the units where feasible given the particular needs.

In June 2005, the Town completed the Affordable Housing Production Plan. Following this, the Town appointed an Affordable Housing Committee to oversee implementation of the plan and further the Town's affordable housing goals. The Town's Affordable Housing Committee prepared a report with recommendations to the Town Council but has not been active in recent years.

The Town adopted Inclusionary Zoning in 2010 and there are two applications currently pending under this provision. The threshold for requiring the affordable housing unit is five market rate units; however, when discussed with developers, they will drop their market rate density to below five which will then not trigger the ordinance. The Town has required six affordable housing units as a condition for the granting variances for legalizing additional dwelling units. The Town is currently reviewing two proposals that include an affordable housing component. If they are approved as proposed there will be seven additional affordable housing units and they would be the first ones to be built under the Inclusionary Zoning provisions.

The Town also revised the zoning ordinance to allow multi-family dwellings in otherwise single family zones and to allow accessory dwelling units for nonfamily members when they are restricted to affordable housing. No one has taken the opportunity create a multi-family dwelling in a single family zone; however, there were two affordable units created when accessory family dwelling units originally approved were modified through the zoning process to allow for non-family occupants. It is believed that the 30-year deed covenant requirement is the main reason why people do not create the affordable units. The rental for affordable units is often more than

landlords are charging so they are encouraged to participate until they find out that they need to have a 30-year deed restriction.

In addition, there are three locations depicted in green in Map 6 Homes and Neighborhoods identified as "Open Space Conservation with Affordable Housing and Agriculture". These are existing residential properties that are currently used for agriculture and/or have undeveloped woodlands and open space. The Town intends to keep these properties residentially zones to be consistent with the FLUM. However if these properties were to be developed in the future, considerations should be given to preserving existing open space areas and utilizing existing residential structures and developed residential portions of the properties for affordable housing options.

There is little land available for large scale development which could include a percentage of affordable housing; therefore, infill development will continue to be the preferred way to achieve the affordable housing goals. There needs to be smaller sized, well-designed housing units to fit into existing neighborhoods. A public advertising campaign and strong leadership on the importance and need for affordable housing is also necessary. In order to meet the affordable housing goals, the Town will need to find creative solutions.

It is also worth noting that the Town has been well managed and maintains the lowest taxes in the region which is a plus to affordable living.

Affordable Housing Progress

The table below is an assessment of the Town's affordable housing strategies from the 2009 Comprehensive Plan, including resulting progress of affordable housing development in Town.

Assessment of 2009 Affordable Housing Strategies

Strategy	Number of Units Proposed	Number of Actual Units
Allow Multi-Family Housing By Special Use Permit in R-10 zone for 3-4 units	49	0
Factors affecting Success Rate and Ways to Improve the Success: The Town has not yet amended the zoning ordinance to allow this strategy. In doing so, we would explore a partnership with RI Housing Works and the Roger Williams University Community Partnerships Center to assist with outreach. A brochure could be developed to generate interest and help educate on the options. A guidebook of housing types and styles could also be created illustrate how to keep the housing within the character of the neighborhood while also generating interest.		
Mandate Inclusionary Units	75-120	5
Factors affecting Success Rate and Ways to Improve the Success: The Town adopted the mandatory inclusionary zoning in 2010 with a trigger threshold of 5 or more units. The Town did not see many applications during the subsequent years for subdivisions with this many units or the Developer revised the application to provide fewer than 5 thereby eliminating the requirement. The Planning Board recently approved a subdivision (July 2015) with 2 affordable housing units as a result of the mandatory inclusionary zoning requirement. In 2012, the Planning Board granted Master Plan approval on a mixed use development with 3 affordable units in accordance with the inclusionary zoning requirement; however, these units have not yet been built. While this has had some limited success, we expect that we will continue to see units produced through this requirement. The Town's Technical Review Committee continues to facilitate a greater understanding of the process with the developers and coordinate with the Town's affordable housing agency so that the monitoring, marketing, and eventual sale or rental of the LMI unit does not seem so daunting to the developer.		
Allow Duplexes by Right in R 15 and R 20 Zones	18	0
Factors affecting Success Rate and Ways to Improve the Success: The Town changed the zoning to allow duplexes by Special Use Permit in the R15 and R20 zones rather than by-right. The reason for the lack of units being created by this strategy has been lack of will by property owners to build duplex units with the mandatory30-year deed restriction needed on the affordable unit. Again, in partnership with RI Housing Works and Roger Williams University Community Partnerships Center, a brochure could be developed to generate interest and help educate		

on the options. A guidebook of housing types and styles could also be created to generate interest and illustrate how to keep the housing within the character of the neighborhood. Based on the past performance of this strategy, we have adjusted the expectations going forward.		
Review Accessory Family Dwelling to Allow non-family affordable Units	25-50	2
Factors affecting Success Rate and Ways to Improve the Success: The zoning ordinance was amended to allow for this; however, we haven't seen any applications because most people want this unit for family and don't have a need to create a non –family unit. While we have had 2 or 3 Accessory Family Dwelling Units transition to non-family Affordable Dwelling Units, we haven't seen as many as expected. Those that have applied to transition are unique situations where either the family member has left the property and the owner wants to keep the additional unit or the property has been sold and the new owner wants to keep the unit but doesn't have a family member to occupy it. While it is a great way to keep both the homeowner and the renter with affordable housing, most people are reluctant to go down this path because of the required 30-year deed restriction. Most people want more flexibility and some people think it will make it difficult to sell the property. However, more can be done to educate people on this option as part of our enforcement follow- up with the existing stock of Accessory Family Dwelling Units.		
In-Fill Development Vacant Lots R10	12	0
Factors affecting Success Rate and Ways to Improve the Success: The reason for the lack of units being created by this strategy is assumed as lack of will by owners / developers. Similar to the strategies listed above, more could be done to education property owners about this option in partnership with RI Housing Works and the Roger Williams University Community Partnerships Center. To educate and create interest, a "Small – Lot Pattern Book" could be created which would illustrate how to create in-fill development that keeps within the character of the neighborhood and sparks ideas on small home designs. We will also explore opportunities for additional infill lots in the R6 and R8 zones		
Rehabilitation in Low – Mod Area	212	0
Factors affecting Success Rate and Ways to Improve the Success: The reason for lack of units being created by this strategy is lack of will by owners/developers and required deed restriction for 30 years on property. Because of the lack of performance on this strategy, we have adjusted our expectations going forward. However, there is a relative high supply of older housing stock in the low-moderate area census tract so we will also review the current CDBG home repair program policies to determine if we can create any deed restricted units through this program. A future housing trust fund could also help pay for monitoring costs as an additional incentive for the housing units and be used for low interest loans or other home purchase assistance.		

Adaptive Re-Use Robin Rug Mill	10	0
While these units have not yet been built, they were a condition of the zone change for the re-use of the mill.		
Comprehensive Permits	66	18
Factors affecting Success Rate *We had one Comprehensive Permit application which was before the Planning Board in July and denied. The proposal had 5 units of affordable housing. The reason for lack of units under this strategy has been the poor housing market overall and the lack of applications.		
Conversion of Student Housing at Almeida Apartments	30	0
Factors affecting Success Rate: This strategy is in partnership with Roger Williams University; however, the University has not been ready to move forward on this action and is still using the Almeida Apartments for student housing.		

The Affordable Housing Strategies Table that follows summarizes the number of affordable units to be produced by development strategies of the Comprehensive Plan and the timeline to achieve the 10% affordable housing target of 1,012 by 2035 (20-year horizon).

The housing target is calculated as follows:

20-year population projection = 23,787 (from RI SPP 20-year population projections)

Average Household Size = 2.35 (from Factfinder. Census.gov 2010)

20-year housing unit projection 10,122 (calculated by dividing the 20 year population projection by the average household size)

Forecasted 10% threshold = 1012 (calculated by multiplying the 20 year housing projection by 10%)

Existing affordable units = 535;

Forecasted to need by 2035 = additional 477

Affordable Housing Strategies Table

Strategies (Items in parenthesis refer to Action Items from the Implementation Table)	1-5 Years	6-10 Years	11-15 Years	16-20 Years	Projected Total
1. Comprehensive permits at identified sites (H-21)	15	35	34	42	126
2. Inclusionary zoning	20	20	20	20	80
3. Accessory Dwelling Unit – (H-20)	5	5	5	5	20
4. Condition of variances and zone changes (H-22)	4	4	4	4	16
5. Infill (H-21 and H-24)	9	10	11	12	42
6. Housing rehab/existing housing stock conversion with housing trust fund (H-3, H-11, H-21)	10	20	20	20	70
7. Tax sale properties	2	2	2	2	8
8. Multi – Family by Special Use Permit – (H-1, H-2, H-10)	3	5	7	10	25
9. Mixed Use Commercial/Res	20	20	25	25	90
TOTAL Affordable Housing Units	88	121	128	140	477

NOTES from the Affordable Housing Strategies Table:

1. Comprehensive Permits at Identified Sites – refer to the Affordable Housing Location Summary Chart for locations. This is a 2009 Strategy that has been carried forward with an adjustment to the number of expected units since one of the previous identified properties is no longer available. This strategy also includes the units from Robin Rug and student housing at Almeida.
2. Inclusionary Zoning – This is a 2009 strategy that has been carried forward.
3. Accessory Dwelling Unit for affordable Housing – This is a 2009 strategy that has been carried forward and revised as to the number of expected units.
4. Condition of Variances – has been an effective tool when applicants come to legalize units and/or need other relief on density. This is a new strategy.
5. Infill– This is a 2009 strategy that has been carried forward and revised as to the number of expected units.
6. Housing Rehab and Existing Housing Stock Conversion using established housing trust fund to assist with low interest loans and home purchase assistance and CDBG funds. This is a 2009 strategy that has been carried forward and revised as to the number of expected units.
7. Tax Sale Properties - In conjunction with RI Housing, Town to monitor tax sale properties annually and move to acquire for affordable housing establishment. This is a new strategy.
8. Multi-family Units – This is a combination of two (2) 2009 strategies that have been carried forward and revised – Multi-family by Special Use Permit and Duplexes by Right.
9. Mixed Use Commercial/Residential Units including Metacom Mixed Use Zone – This is a new strategy

Homelessness

According to the Bristol Director of Human Services, the Town does not have data on the number of homeless people, although it is believed to be small. The Town does not have a homeless shelter within its borders – the nearest ones are in Middletown, Warwick and Providence. The East Bay Coalition for the Homeless works to help families get back on their feet by providing access to safe, affordable housing combined with case management, financial counseling and connection to mainstream resources. There are also short-term shelter services provided by the Rhode Island Veterans Home on Metacom Avenue and the East Bay Coalition for the Homeless' 18 apartments that are scattered within East Providence, Bristol and Warren. The Town will work with these local homeless agencies and others such as the RIverwood MHS and/or East Bay Community Action Program to track homeless individuals or families who may have resided within the Town.

Statement of Goals and Policies

Housing policies must support a broad range of housing opportunities so that Bristol can continue to provide affordable housing to its traditionally diverse population and to ensure that all neighborhoods are livable places.

Based on the critical issues described in the Introduction and the overarching goal stated above, this section presents the goals and policies developed by the Town of Bristol to guide its homes and neighborhoods. These goals encompass goals expressed in the other elements of this plan.

Goal 1. **Work for a continued range of housing opportunities so that Bristol can continue to be home to our traditionally diverse population.**

Policies to achieve Goal 1:

A. Direct Town efforts toward addressing housing needs that the private market does not, or cannot, meet.

B. Address the needs of Bristol's special demographic groups, to include: working families, single parent families, parents whose children are grown, persons living alone, and the elderly.

C. Make sure that housing programs first meet the needs of Bristol residents.

D. Encourage a broad range of housing costs, with special emphasis on creating and maintaining houses and apartments that are affordable to lower income residents.

E. Work toward a range of housing types to match residents' differing preferences and resources for their physical environments.

F. Encourage a range of housing ownership and rental options to match residents' differing preferences and resources, to include: home ownership, rental, accessory apartments, condominium, cooperative, and congregate.

G. Continue programs to help elderly and others on fixed incomes stay in their homes.

H. Encourage coordination among the public agencies and the community organizations to leverage their resources and generate new programs.

Goal 2. **Ensure that neighborhoods are livable places.**

Policies to achieve Goal 2:

A. Historical and architecturally significant properties should be surveyed and designated for preservation.

B. The Town is encouraged to investigate new urbanism techniques such as form based vs. use based zoning regulations to maintain characteristics of existing neighborhoods.

C. Sidewalks are encouraged for safety and sustainability purposes in new developments.

D. Connectivity must be maintained between neighborhoods as essential to quality of life, as well as for safety and convenience.

E. Address the issue of exterior lighting for public and private development, balancing the need for adequate lighting with the need to avoid excessive lighting on nearby residences.

F. Provide adequate water supply and pressure.

G. Buffer neighborhoods from incompatible land uses.

H. The Town should continue to call for adequate buffer zones between incompatible uses (i.e. between adjoining industrial and residential areas).

I. Take into account existing land use patterns when designing new zoning regulations.

J. Promote good design in all future developments.

K. Require that new developments stay within a scale that is appropriate to Bristol and to surrounding homes.

L. Strengthen the services and amenities that make Bristol a good place to live.

Goal 3. **To protect the safety and welfare of all residents, new residential development along the waterfront, especially on undeveloped land, should be carefully reviewed and considered for its appropriateness.**

Policies to achieve Goal 3:

A. Continue participation in the National Flood Insurance Program in order to allow property owners the ability to purchase flood insurance. Any waterfront development should be required to provide public lateral access to the waterfront.

B. The Town will pursue federal and / or state funds to purchase flood prone properties.

C. The Town must stress the need to maintain large tracts of open land as still exist.

Goal 4. **Create affordable housing opportunities and diversify the housing stock.**

Policies to achieve Goal 4:

The Town's Affordable Housing Production Plan of 2005 recommends the following affordable housing policies and they are re-affirmed and incorporated in this Plan. The Town of Bristol's affordable housing goals are as follows:

A. Create a diversity of housing types that meets the current and future needs of low-moderate income residents, employees, and special needs populations. While Bristol does currently have housing for the elderly, families, single persons, and special needs populations, the majority of housing being built in Bristol is out of the reach of the low-mod populations. The housing gap this causes will continue to grow unless Bristol continues to actively and aggressively pursue the development of affordable housing within the town.

B. Meet 10% Goal for affordable housing.

C. Provide housing opportunities for the Town's special needs populations. Achieve or maintain, whenever possible, at least a few housing units that will provide opportunities to households of one or more of the groups that have been identified as being of particular need in Bristol, with the following targets: Family Housing 394 Units, Elderly Housing 96 Units, Special Needs Housing 73 units. Include careful and creative decisions about how the public purpose of expanded housing opportunity can be combined with other public purposes on any given site.

D. Revise the zoning ordinance to promote affordable housing and housing that meets the needs of all Bristol citizens.

E. Identify potential locations for affordable housing development.

F. Strengthen partnerships and build community support for affordable housing development.

G. Identify existing and new resources for affordable housing development.

H. Encourage public /private partnerships for the creation of affordable housing which will provide additional funding opportunities such as grants.

I. Ensure the long term affordability of housing.

Affordable Housing Locations Summary Chart

Location	Total Units *	Affordable Units
Robin Rug	98	10
Nunes Property on Chestnut Street	12	4
Bristol Housing Authority Senior Housing	22	22
Francis Gravel Bank at Bayview (P48/L8)	24	6
Goulart at Metacom (P87/Lots 1-8)	35	7
KenDan LLC at Gooding (P11/Lot 1)	20	5
Anthony Nunes at Metacom (P108B/L4&9)	10	2
Coehlo at Gooding (P111/Lots , 2, 42, 43)	16	4
Stephenson off Annawan (Plat 127/Lot 6)	14	3
Stephenson in Mason Farm (P128/Lots 3,4,9,10)	25	6
Rego/Ramos at Metacom (P128, L 15 &16)	6	2
Francis Bros off of Harrison (P133, L3&4)	14	3
Raposa at Metacom (P150/L17)	5	2
Perry Nursery at Metacom (P159/L1034)	8	4
RWU at Almeida Apts	30	30
Balazano's Mt. Hope Avenue (mixed use)(P41/L 126)	8	4
St. Elizabeth School – (Reuse)	12	12
Total Identified	367	126

*Potential proposed unit numbers are conservative; build out of each site will be specific to each development proposal.

Note that the projected 126 affordable units indicate significant progress toward closing the 367 unit shortfall in the Town's effort to meet the 10% threshold. The Town will continue to look to creative approaches in addressing the affordable housing requirements despite the fact that expectations for achieving the goal described in the 2009 Comprehensive Plan have been diminished with the realities of the fluctuating housing market, which is out of the Town's control.

Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 6

Homes and Neighborhoods

BARRINGTON

WARREN

WARREN

Kickemuit River

TUPELO STREET

GOODING AVENUE

HOPE STREET

CHESTNUT STREET

METACOM AVENUE

STATE STREET

WOODLAWN AVENUE

Narragansett Bay

Bristol Harbor

Mount Hope Bay

MT HOPE BRIDGE

N

CT

MA

0 0.25 0.5 1 Miles

Legend

Bike Path

Major Road

Bristol

Water Body

Potential Rehab / Redevelopment (Includes Housing)

Mixed Use (Affordable Housing & Commercial)

Parcels

Identified Sites for Potential Affordable Housing Developments

Open Space Conservation with Affordable Housing and Agriculture

This map is not the product of a Professional Land Survey. It was created by the Town of Bristol and MainStreetGIS, LLC for general reference, informational, planning or guidance use, and is not a legally authoritative source as to location of natural or manmade features. Proper interpretation of this map may require the assistance of appropriate professional services. The Town of Bristol and MainStreetGIS, LLC make no warranty, express or implied, related to the spatial accuracy, reliability, completeness, or currentness of this map.

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5. Economic Development and Agriculture

Introduction and Background

Background

Economic Development is actually a broad concept that includes many elements of the Comprehensive Plan. The Economic Development Element Team has defined Economic Development in working, practical, action-oriented terms. Supporting action items are predominantly to be completed within five years, emphasizing the nearer term.

The definition of Economic Development used herein is:

Economic Development is the sustained, coordinated actions undertaken by our community to create a positive environment to help businesses succeed and which enhance Bristol's standard of living and quality of life.

A critical aspect of in most definitions of Economic Development – Human Capital Development – is only partly covered by the Economic Development Element. Our element will address:

- Initial workforce readiness and continuing education and training

- Partnerships amongst business, town leadership, school system, community and various educational organizations to promote the above

The full scope of human capital development in promotion of standard of living and economic health is broader than the scope of this element and equally important. It should be developed as part of the on-going development of this strategic planning process.

Success of Economic Development initiatives over the next decade is vitally critical for fulfillment of the Community's Comprehensive Plan aspirations. It is the financial engine that makes the Comprehensive Plan possible.

As we come out of the latest severe recession and as we look back to the last Comprehensive Plan (2009) we can see there have been profound changes in business environment, products and technology. The pace of change will only accelerate and become more profound. The gap between those left behind and those that succeed will become a wider gulf.

There are emerging trends/ opportunities that can drive, support or limit business growth. As examples:

- New manufacturing technologies such as 3-D Printing that have relevance across Bristol core manufacturing businesses, embryonic businesses, arts and culture;
- New materials technologies such as composites, bio-materials and nano-materials;
- Emergence of "independent workforce" which ranges from independent professionals, consultants, and tradespersons to virtual businesses and home-based businesses[1];
- Collaborative work environment - local, regional and global;
- Obsolescence of workforce skills and career changes; and
- Power of local government, business and educational collaborations.

[1] Perhaps as high as 20% of the workforce when broadly defined and growing

From an Economic Development standpoint we are at a critical point that requires leadership, activism, and change:

- The business world changed in the past half-decade and will rapidly change in the coming decade;
- Our economy is stagnant; opportunities for our current workforce and future generations are limited without change;
- Stagnation is slow death; growth is the only way to economic development;
- Old ways are long dead and change must be embraced. It is much riskier to maintain the status quo.

Demographic in the Snapshot section of the Comprehensive Plan support a strong call to action. Of note during the period from 2000-2012:

- A significant reduction of the number household incomes below $100,000, with almost one-third of these in lower income brackets. (There has been an overall growth of 4% in household income due to growth in over $100,000 categories.)
- A static civilian employed population (employment figures are heavily weighted by our largest employer Roger Williams University). This twelve year trend also shows significant decrease in higher paid nad skilled job segments of manufacturing and professional/scientific categories to also include construction.

Two basic realities must be addressed in an Economic Development Growth Plan. Community actions must support:

1. Continued growth among more mature businesses. Restrict growth and business moves out.
2. Support for new businesses relocations to Bristol and for embryonic business start-ups.

Without such supportive environment businesses cannot thrive.

The Community must look forward. The business environment in Rhode Island is difficult, but time and time again in our interviews the Economic Development Element team heard:

- Bristol has incredible resources and assets which are very attractive,
- Bristol aspirations and values are our strength and key selling point for business growth, and
- It is about LOCAL attitude and support!

These values expressed the understanding of business owners that our Town's character, distinctiveness and resources are its greatest strength and selling point to attract and build business. Key attributes to be developed and preserved included:

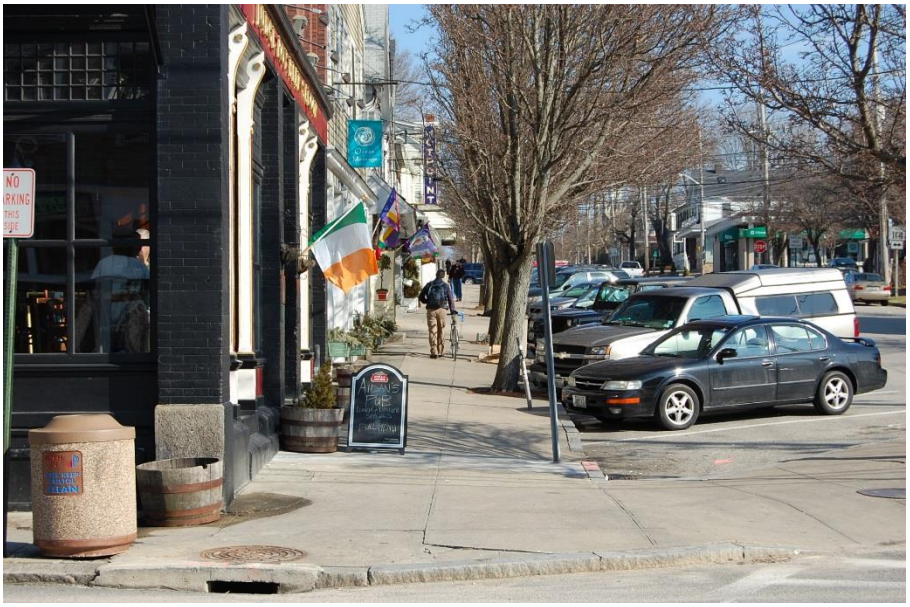
- A Town of positive action and support; looking for a better future – attitude backed up by action – Getting to "Yes!"
- Vibrant downtown of regional stature
- Strong historic New England coastal town charm
- Family and neighbor oriented
- Conservancy/ stewardship is a given
- Leaving Bristol a better place –opportunities for future generations through education and workforce opportunity

In summary, sustained, concerted and active support of Economic Development initiatives, outlined in this element, is:

A. Critical to this Comprehensive Plan:
   - It improves the financial condition of our community through more and better paying jobs
   - It provides the funding – viable financial base – for other Comprehensive Plan initiatives
   - It provides employment for younger generations to enjoy a higher standard of living

B. And it must be monitored, measured, managed and updated as a living Strategic Plan as an on-going annual Town-managed process.

The Town formed the Economic Development Commission in 2010 after adoption of the 2009 Comprehensive Plan which was an action item from that plan.



State Street

The Town is currently in the process of converting the Downtown Naval Reserve Armory into a Maritime Center for visiting boaters (Action Item # ED – 9 from the 2009 Comprehensive Plan Update). The Town received a Boating Infrastructure Grant from the US Department of Fish and Wildlife to undertake this renovation which will provide showers, restrooms, laundry facilities, lockers, and other amenities for the visiting boaters. The Roger Williams University Community Partnerships Center also assisted the Town in planning for this project and their work was instrumental in helping the Town receive the grant. The Town is also in the planning and permitting stage of expanding the downtown Church Street Dock which will extend behind the Armory in the area of the donated riparian rights from the Robin Rug property. A transient float for visiting boaters was installed on the west side of Rockwell Dock in 2012 which was funded by a Boating Infrastructure Grant from the US Department of Fish and Wildlife.

The decommissioned school buildings located on High Street, Walley, Byfield, and Reynolds Schools have also seen a recent revitalization. The Byfield and Reynolds Schools have been transitioned into rentals for a variety of uses including non-profit visual and performance art groups, small start-up offices; and, creative arts business such as fabric design. Walley School, in need of more rehabilitation, has not yet transitioned into other uses; however, the Town is moving forward with a plan to complete renovations to allow the building to be rented. It should be noted that these schools are seeing new life due in part to the collaborative work that was done to explore reuse options for the Walley School. The bringing together of various local art groups for a facilitated discussion as part of a Roger Williams University Community Partnerships Center project resulted in an increased interest from local artists in renting spaces in these school buildings.

With the help of Community Development Block Grant funds, and the Town's Redevelopment Agency, the Town was able to facilitate the revitalization of the Bristol Industrial Park which is a large, former mill complex that had become a blighted industrial property in the Wood Street neighborhood. The property had gone into receivership and the Town and Mosaico Community Development Corporation were able to work together so that Mosaico could acquire the property in 2010. Mosaico, a non-profit organization, has been able to secure grant funding from the EPA along with the CDBG grants to revitalize the property.



Bristol Industrial Park

Implementation has begun on the Marine Trade's Route plan recommendations. This project, funded by a RI Statewide Planning Challenge grant, outlined recommendations to define and upgrade the route to the waterfront for the large boat builders and marine businesses in Town. Working with the RIDOT during the Hope Street Sidewalk project, the Town was able to retrofit signage at a key intersection of Thames Street and Hope Street to allow the large boat trailers to negotiate the curve.

In 2012, RIDOT completed the Hope Street sidewalk project which included the installation of new granite curbs and sidewalks from the Thames Street intersection to Constitution Street. New decorative street lights, benches, bike racks, trash and recycling bins were also installed as enhancements. The Steel Yard was commissioned as part of the project to create the street furniture which helped incorporate public art and place making into the project.

The Town completed a Wayfinding Plan for installation of signage to direct visitors around Bristol. This plan includes signage for parking places, destinations, and directional information that gives the Town a branded identity consistent with the existing "Welcome to Bristol" signs located at the gateways into Town. The theme for these signs is the patriotic red, white and blue which Bristol is so famous for.



Downtown Visitor Center

Earlier this year, the Towns of Bristol and Warren received a 5-year re-designation of the Mount Hope Enterprise Zone. The Town partnered with the Town of Warren on this re-designation application. It is an important tool in the economic development toolbox and provides an incentive to locate businesses in Bristol by providing income tax deductions for qualifying businesses.

Our Process

About a dozen of the 48 action items from the 2009 Comprehensive Plan survive in this Plan and several are more on-going "Policy Items."

The Steering Committee conducted interviews with businesses to better understand business needs and competitive pressures that manifest themselves in government/business relations. Interviews were organized by business groupings/ segments as follows:

- Destination businesses
- "External Facing" businesses whose customers are predominantly global, national, regional, or state
- Quality-of-life local businesses, and
- Educational and training organizations

Included in Destination businesses were cultural events, museums, other arts and crafts, regionally-known restaurants, hotels, and recreational water sports.

External-facing businesses include commercial fishing, maritime/ composites, light manufacturing, embryonic, individuals, and other.

Quality of life businesses include local trades and services, family services, and agriculture.

Educational businesses include Roger Williams University, private trade schools such as RIMTA and IRYS, and of course supporting high school/ vocational education.

Interviews were conducted to better understand:

- Competitive industry issues where other localities were taking economic development actions to place local businesses at disadvantage or where other localities' best practices could be emulated,
- Emerging industry strategic issues and opportunities where business- educational-governmental relations might be appropriate and beneficial,
- Insights into six common, typical local government/ business areas of interface and the importance of "Bristol Values."

These six common areas included:

- Development/ advertising for customers or markets
- Provision of civic services and utilities
- Developing the workforce
- Funding growth
- Imposition/ management of regulations, approvals, and taxes
- Decision-making on location

The relative importance of each of these areas to the business segments can be seen in Table 1 and will be discussed in subsequent sections but it is important to note here that business is not monolithic:

importance of these areas varies by segment. Some areas involve on-going relations and some are intermittent. As a result importance can also just reflect in-the-moment experiences and concerns.

The Steering Committee conducted about 40 interviews which gives a good understanding of the issues and opportunities. Businesses were aggregated into 4 categories (Destination Bristol Businesses; External-facing Businesses where customers are mostly global, USA or regional; Bristol's Quality of Life Businesses; and, Educational Institutions) and further broke down into subcategories shown below. The interview discussions focused on the seven topical areas noted in the left hand vertical margin. These substantive conversations (along with independent research) and businesses' weighting of the critical importance to their well-being and grown opportunities formed the basis for many recommendations.

Table 5.1: Importance of Town Services and Support in Business Success

Level of Importance Critical 5 Very High 4 Moderate 3 Some 2 Little/ None 1	DESTINATION					EXTERNAL FACING						QUALITY OF LIFE				EDUCATION		
	Culture/ Museum	Other Arts/ Crafts	Restaurants/ Hotels	Retirement	Recreational Marine	Commercial. Fishing	Maritime/ Composites	Other Manufacturing	Embryonic	Individuals	Other	Trades/ Services	Local Merchants	Family Services	Agriculture	RWU	Schools	Private
Markets & Customers	5	5	4	1	2	2	2	2	2	1	2	1	2	2	2	1		1
Civic Services/ Utilities	4	5	5	4	5	5	5	2	5	4	4	1	1	3	3	3		3
Developing Workforce	1	1	2	1	1	1	5	4	5	3	4	4	1	3	1	1	2	5
Funding Growth	2	1	2	1	5	1	1	2	1	1	1	2	2	1	1	1	5	3
Regs./ Approvals/ Taxes	4	2	4	2	4	3	4	5	5	2	4	4	5	3	3	3		3
Business Location	1	3	3	1	1	4	3	1	3	4	3	2	4	3	1	1		1
Bristol Values	5	5	5	5	5	4	4	3	3	3	3	3	5	3	5	5	3	1

It was not a scientifically valid survey and further surveys can better home-in on sources for betterment. It should be noted, that the business community appreciated the outreach, chance to discuss the issues, and looked forward to continuing dialogue.

The Steering Committee also tried to research best –practices and emerging trends, so that it might develop better recommendations and leverage already proven solutions, but it was limited by time and resources. The Committee strongly believes this research should be developed as part of the aforementioned Town strategic economic development process.

The Rehab – Economic Opportunity Sites on Map 7 were identified as properties that are available for new economic development opportunities or are ripe for redevelopment/revitalization due to the condition of the existing buildings or underutilization of the site. Generally, the sites are zoned for General Business or Manufacturing, are currently vacant or being underutilized such as being used for outdoor storage or are improved with older buildings that are seeing the end of their useful life and have opportunity for rehabilitation. In particular, the map includes the Bristol Industrial Park which is an historic mill complex that is currently in the process of being revitalized and presents an opportunity for expanded economic development.

Key Findings

Almost all of the interviewees expressed appreciation for the efforts of the Town to address business concerns. They generally expressed admiration for town administrators and services such as police, fire and public works. They felt that by working together much progress and benefit can be achieved.

Each of the Business Segments is an important element for improved standard of living and economic health of Bristol, but with different roles.

The Town must focus on growing destination and external-facing businesses. These are the basic, core building blocks for our future. They are the growth engines and provide synergistic growth to other segments. External-facing businesses are particularly important because for each new job created it supports 3-4 local jobs. These tend to be well-paying jobs.



Manufacturing in East Bay Industrial Park

The Town's core manufacturing business of maritime, composites and engineered plastics has many businesses from boat builders to sail makers and spar makers to component manufacturers, distributors, retail and services as well as related materials businesses. Most have branched beyond marine trades to broader markets to sustain growth. Bristol has a potential Center of Excellence in these areas which provide a basis for further development.

Based on interviews conducted, destination businesses bring annually about 35,000 wedding guests and 300-400,000 events visitors to our Town. But, the Town has not optimized the economic growth potential of this market, which requires concerted effort amongst all the constituents to broaden the season and diversify/ broaden the opportunities.

Roger Williams University (and other local universities and colleges) is important both as the Town's largest employer but also as an important partner with the Town, businesses, and other local educational institutions. In addition to being the largest employer RWU brings thousands of people to Bristol every year. Universities can mentor, partner, and seed embryonic and small business in a symbiotic relationship. Small businesses and embryonic businesses become the longer-term engines for growth and higher paying jobs. The Town must also focus on developing embryonic business for our long-term growth.

Bristol needs to create a sustained pro-business environment. It really is about local attitude and getting to "yes" within the constraints/ benefits of Bristol Values. Town government needs to foster and lead

business growth. This requires significant partnership with business and educational institutions.

Since these partnerships are critical and economic development results from community action, partnership action items are included in this Economic Development element.

Regulatory, permitting and fee structures need updating and streamlining to reduce the cost, effort and time to fit 21st century business needs. Without metrics and best-practices it is impossible to recommend specific actions, but it is a significant legitimate concern of most businesses surveyed. Other localities have tackled these issues with creativity that protects all interests and Bristol should leverage these efforts. Small businesses and non-profits are particularly disadvantaged. It must also be noted that both business applications and town processes must improve for there to be realized benefit.

There are areas where judicious town investment can yield significant benefits: three areas in particular, hiring of an economic development officer, and advertising/ promotion of destination business; and, promoting a Center of Excellence for composite/marine trades technologies.

The summary of the economic development strategy is therefore a singular goal for the sustained, viable growth of business to provide for improved standard of living and economic health of Bristol. It is important that such pursuit be built upon Bristol Values.

Action items herein are organized by groupings of:

A. Town Organization and Processes
B. Regulations, Permitting and Approvals
C. Development, Marketing and Advertising
D. Civic Services and Utilities
E. Developing the Workforce
F. Other, Including Mandated Agriculture Section

Statement of Goals and Policies

The singular goal of Economic Development goal is the sustained, viable growth of business to provide for improved standard of living and economic health of Bristol. It is important that such pursuit be built upon Bristol Values, including:

- Fostering a culture of positive community action, collaboration and support; looking for a better future – attitude backed by action – Getting to "Yes!";
- Developing a vibrant downtown of regional stature;
- Enhancing our reputation of strong historic New England coastal town charm;
- Safeguarding our family and neighborhood-oriented commitment;
- Honoring conservancy/stewardship as a given; and,
- Leaving Bristol a better place – ensuring opportunities for future generations through education and workforce development

Based on the critical issues described in the Introduction and the overarching goal stated above, this section presents the policies and actions developed by the Town of Bristol to guide its Economic Development activities. These goals align with goals expressed in the other elements of this plan.

Therefore,

Goal 1. **The sustained, viable growth of business to provide for improved standard of living and economic health of Bristol, the pursuit of which should be built upon Bristol Values and Attributes.**

Policies to Implement Goal 1:

A. Section A: Leadership and Collaboration: Making economic development a priority in Town organization and processes to:

1. Provide economic development leadership and focal point for collaboration amongst government, university, civic and businesses to achieve our goals.
2. Encourage development of best practices and transparency.

B. Section B: Streamlining regulations permitting and approvals that:

1. Encourage, expedite, and minimize the costs of doing business while achieving the intent of our goal and policies;
2. Optimizing the use of scarce manufacturing/commercial zoned land - only 6% of Bristol land is zoned for commercial/industrial us. (this includes a range of policies from encouraging reuse and rehabilitation, buffering commercial and industrial activities from adjoining uses, defending manufacturing and commercial zoned areas against encroachment for residential purposes, and keeping options open for growing firms to find the type of space they need at a price they can afford, to other actions described herein.)
3. Strikes a workable compromise between businesses' need for visibility, and the Town's policies regarding open space, landscape preservation and signage.

C. Section C: Expanding development, marketing and advertising initiatives that;

1. Encourage "Destination Bristol" businesses of regional stature and small retail and service businesses that meet local needs.
2. Builds upon Bristol's core manufacturing, technology, and high-value business base.
3. Promotes emerging businesses that can leverage Bristol geographic, educational, workforce, and current business base strengths.
4. Promotes tourism and businesses that complement the Town's environmental, scenic and historic resources.

D. Section D: Modernizing Civic Services and Utilities for 21st century business requirements to include:

    1. Access and interconnectedness
    2. High-Speed Communications
    3. Collaboration and Service Centers.

E. Section E: Improving programs to develop a 21st century workforce to provide:

    1. A workforce to attract an sustain core and emerging businesses
    2. Continuing education opportunities to re-train and update the workforce.
    3. Our future generations with quality, high-paying (local) opportunities.

F. Section F: Sustaining agriculture and development aqua-culture.

A. Town Organization and Processes

The following action items will assist Town leaders to expand the economic development efforts. Strategic planning around economic development is critical in the public sector to ensure long-term success, vitality and affordability of the community. The Town must be a partner to local businesses and work to create a positive environment for the start-up, expansion, and attraction of new businesses.

As described in the introduction, the basic building blocks of an economic development growth plan are:

- Growing the "external facing" businesses, especially Bristol's Core businesses
- Growing Destination Businesses through marketing and through integrated efforts to broaden the season and broaden the offerings
- Develop local embryonic and new businesses as the longer-term engines of growth

One of the most important action items in this Element is to hire an Economic Development Officer (EDO) who will have the appropriate organizational stature, visibility, responsibility and accountability to the local policy makers and be the "go to person" in Town Government for businesses. The vision and roles of the whole town organization for Economic Development must also be defined, aligned and understood – from Town Council, Town Administrator through the supporting departments.

The role of the EDO would include:

- serving as the central point of contact for businesses to help navigate and expedite the regulatory processes within the Town and the State;
- keeping a database and inventory of all vacant commercial/industrial property and re-development opportunities;
- coordinating with local and state and regional business groups, federal, state and private financial services, colleges and universities and local advocacy groups;
- collaborating with other Town departments to identify and implement economic development "tools" such as changes to regulations and tax incentives;
- managing Economic Development programs such as Mt. Hope Enterprise Zone and Micro-Enterprise Program; and
- promoting the Town for new and expanding businesses.

Having a dynamic Economic Development Commission (EDC) is a cornerstone to the success of Economic Development initiatives in Bristol. The Town Council will review the role of the EDC to ensure that it has the authority and capacity to undertake action-oriented projects and strategic planning to expand economic opportunities consistent with the Comprehensive Plan.

B. Regulations, Permitting and Approvals

As noted in the introduction, regulatory, permitting, and fee structures need updating and streamlining to reduce the cost, effort, and time. Without metrics and best-practices it is impossible to recommend specific actions, but the need to improve these areas reflects a significant legitimate concern of most businesses surveyed.

A number of communities across the nation have creatively addressed this area, as have university public administration departments. These can be sources of best-practices. There is no need to re-invent the wheel.

This area represents a potential critical impediment to the establishment of new businesses in Bristol and restriction on growth for existing businesses. This area directly impacts on the overarching objective for this element. The current regulatory, permitting and fee structure can impose a significant diversion of resources from pursuit of core business activities and growth.

It is a heavy imposition on small businesses, new business, and embryonic business. For established businesses is very costly and time consuming.

It must also be noted that both business applications and town processes must improve for there to be realized benefit. Getting to "Yes" on the part of both parties is critical.

C. Development, Marketing and Advertising

This set of actions continues and expands on-going development activities for the destination businesses.

These action items also recognize the interrelated cause, effect and benefit of Bristol's destination marketplace in which the destination season must be lengthened (year round) and destination offerings and accommodations strengthened and diversified to entice more visitors to linger and spend more in Bristol. Bristol's museums, arts and cultural communities have been through a rough decade but have significant potential to benefit Bristol both economically and culturally. The value of local patronage cannot be overlooked. In fact,

the value proposition builds outward from Bristol to East Bay to Rhode Island to southeast New England and beyond. These actions are proposed as a win-win for Bristol and the Town, and can be accomplished to sustain Bristol Values.

Exploratory actions are proposed for two other business segments.

Bristol has a substantial core business of maritime, composites and advanced materials businesses with trained workforce and supportive educational programs that can form the nucleus of even larger business base. One action item is to explore whether Bristol can leverage or market this into opportunity as a Bristol-based Center of Excellence especially in the maritime trades and composites sectors.

Creation of "high- end" residential condominiums, as a component of a building re-use or rehabilitation project, are an important "green" element providing substantial support to our general and school tax base as well as patronizing arts, dining and destination Bristol businesses. Additional sites in the downtown area and southern area of Bristol can be accommodated without impact to other housing areas or the availability of affordable housing. It supports an important, fast-growing section of our demographics.

D. Civic Services and Utilities

This topic should no longer be limited to traditional public works, telecommunications or marine facilities. The introduction notes a sample of emerging trends which Bristol can embrace as a generational change. While these are noted as business trends, proposed solutions have broad personal, community, education, and arts and cultural applicability as well. This Economic Development Plan proposes three basic building block public services as a foundation for enabling such change in a business/ educational/ government partnership:

- Technology collaboration centers
- Professional services centers
- University-led Business Development Centers

All three have broad applicability and community benefit beyond just economic development.

As more information/technology collaboration flows amongst businesses, our communications backbones also need modernization. In fact, a number of communities which have been successful in the post-recessionary period have cited upgrading these new and traditional utilities as key civic services/infrastructure underpinning economic growth. These attract businesses.

The solution for increased traffic to downtown businesses cannot be expressed solely as increased parking but must be a more holistic approach. For example: many customers and visitors are older so parking must also be convenient and well-advertised; success downtown will mean more business and necessitate more robust solution; success with the maritime center and destination businesses also requires a more holistic approach.

Bristol business from bedroom community commuters to destination and manufacturing businesses rely on adequate access and egress to Rhode Island, Southern New England and Boston areas. This infrastructure is critical.



Maritime Center in Historic Naval Amory

E. Developing the Workforce

This Economic Development grouping will address:

- Workforce readiness and continuing education and training
- Partnerships amongst business, town leadership, school system, community and various educational organizations to promote the above

But the full scope of education (human capital development) in promotion of standard of living and economic health is broader than the current scope of this element and should be addressed as an on-going effort.

An adequate supply of trained and willing workers is a fundamental prerequisite for a strong manufacturing and trades/services base. Properly trained and motivated workers have a good chance of finding well-paying jobs.

An effective workforce development program requires the following elements:

- Business and community assessment;
- Collaboration with community resources (primarily education) and employers: flexibility to shift to market changes; and
- Financial support to those in need.

An effective work force development effort can be sector based, place based or both. In Bristol the sector approach should be based on the Marine Trades and Composites clusters as they have the potential to be centers of excellence. The educational flow should start in the middle school, through high school, technical schools a vocational (public and private) education schools to employers. (Examples of private education are the Rhode Island Marine Trade Association and and International Yacht Restoration School programs.

A necessary ingredient of work force development is to broaden the exposure of secondary school students to varied employment opportunities. For example, local internships foster business skills, increased understanding by students of the relevance of the whole school curricula to business opportunity, and local hiring of interns.

Similarly, mentorships and tutorials can also emphasize the relevance/ importance of the total educational experience to their future business careers. These internship/mentoring programs have proven to increase local and in-state hiring of participants.

Light manufacturing and engineering firms, trades and services companies, and family services companies expressed concern that students entering the workforce were not adequately prepared for the business world. These deficiencies were often cited as STEM or soft skill deficiencies in light manufacturing/ engineering firms. Most of the jobs are technical/ technician/ trade skill jobs or administration requiring a strong, broadly-based foundation in high school/ vocational education/ technical school curricula. Soft skills deficiencies most often included written and oral communication and importantly business deportment. This topic also suggests that solutions need to involve all secondary school Bristol residents (and earlier grades) whether high school or technical school enrolled.

With the evermore rapid evolution of technology and a greater propensity for career changes, continuing education will become more of a personal requirement. Though adult education and technical/ trade skills were once taught in the high school, it is more realistic to believe this education can only be achieved in the future through personal attention with community, business and educational partnerships.

Many small businesses and embryonic businesses felt they could strongly benefit from business and technical skills workshops and mentoring.

F. Other, Including Agriculture

Local agriculture includes several small farms and local farmers' markets. Local farms face pressures from large "industrial" farms yet provide a source for locally grown or organic and specialty produce. A vibrant local farm to table connection benefits both growers and restaurants. Commercial fishing as a form of agriculture will face similar pressures from aquaculture farming. Both are an important part of the fabric of our community. Sustaining local farms also improves the quality of life by preserving open space and by offering

opportunities for all to be closer to the earth. Local agriculture is an important source of local produce and should be support by the Town as practical.



Agriculture on Metacom

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Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 7

Economic Development

BARRINGTON

WARREN

WARREN

Kickemuit River

Narragansett Bay

TUPELO STREET

GOODING AVENUE

HOPE STREET

CHESTNUT STREET

METACOM AVENUE

STATE STREET

WOODLAWN AVENUE

Bristol Harbor

Mount Hope Bay

MT HOPE BRIDGE

N

CT

MA

0 0.25 0.5 1 Miles

Legend

Bike Path | Major Road | Bristol | Water Body

Roads

Mount Hope Enterprise Zone

Prime Agricultural Soils

Metacom Mixed Use

Rehab / Economic Opportunity Sites

Metacom Ave Overlay

Existing Commercial and Industrial Properties

Downtown and Waterfront Mixed Use

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6. Natural, Historical, and Cultural Resources

Introduction and Background

Bristol's natural resources include water, soils, vegetation and wildlife. Water resources including freshwater bodies, coastal waters and wetlands are important for the community. Wetlands provide a value to prevent flooding, purify the groundwater, and as a wildlife habitat. Coastal waters are also important as residents enjoy swimming, boating, and fishing in the coastal waters of Bristol.

Scenic resources in the Town include significant historic architecture, mature street trees, scenic roads and scenic vistas. Bristol is renowned for the historic downtown waterfront district which is enjoyed by residents and visitor alike. In 2005, Bristol renovated the Historic Burnside Building on Hope Street into a visitor's center complete with internet access for visitor's to access web sites of local restaurants and places of interest. Recent surveys of Bristol businesses indicated that tourism is very important to their success. These further point to the importance of the community's strong need and desire to preserve and protect its natural and cultural resources.

Residents of Bristol have shown their support for protecting the Town's natural and cultural resources by supporting bonds to acquire

open space and protect historic properties, the most recent bond referendum, approved in 2010, included $3 million dollars for open space preservation. The Town's Open Space Plan includes a system for ranking and prioritizing open space purchases.

The Town is currently working in the 5-year permit period to implement the approved federal and state mandated Phase 2 Stormwater Management Program Plan. This plan includes a public education and outreach component to educate residents on the connection between storm water runoff and pollution to the Bay. The Town has undertaken a storm drainage stenciling program with the 5th and 6th graders and the Mosaico CDC. This program is part of the ongoing community outreach which raises awareness to storm water management issues.

As a peninsula, the Town of Bristol is surrounded by surface water, and the protection of water resources for the use and enjoyment of the public is a significant priority. The Town has initiated watershed management planning efforts in the Silver Creek and the Tanyard Brook watersheds address water quality and neighborhood flooding. In addition, in 2011 the RIDEM and USEPA conducted a public outreach campaign in Bristol to obtain input on two watershed based plans that were being prepared to address water quality issues with the Bristol-Kickemuit River Watershed and the Barrington-Palmer-Warren River Watershed. As portions of Bristol are located within each of these watersheds, Bristol representatives were invited to provide input and attend meetings for both plans. The final plans include descriptions of each watershed including the natural and built environment, as well as an evaluation of water quality issues. These plans also include discussions of current management activities in each watershed to restore and protect water quality, including a detailed review of stormwater management programs in each watershed community. The Town has undertaken several significant stormwater improvement projects to address water quality, including projects at the Town Beach and within the Silver Creek and Tanyard Brook watersheds.

Bristol is home to a number of significant cultural institutions that are important to the identity of the Town as a historical and cultural destination for visitors as well as to residents of the Town. Among these are its numerous churches, ethnic and social clubs, the historic

State House, Blithewold, Bristol Historical and Preservation Society, Coggeshall Farm, Herreshoff Marine Museum, Linden Place Museum, Mount Hope Farm and The Audubon Society Environmental Education Center. These institutions are important to both the cultural and economic aspects of Bristol, and policies that support the success and growth of these institutions should be encouraged.



Linden Place Museum



Mt. Hope Farm

The entire length of Route 114 from Warren to the Mount Hope Bridge (known as Hope Street and Ferry Road) and High Street have been designated as a State Scenic Roadway. This designation will help to protect the scenic resources of the roadway by requiring a review from the State's Scenic Roadways Board for projects that trigger a state permit. In June of 2005, a Stewardship Plan was prepared for the Scenic RI Roadways Board and the Town of Bristol which is intended to help the Town protect and manage the designated Scenic Roadway Corridor in order to maintain those qualities that inspired its nomination.



Post card of oldest house in Bristol

The find by archaeologists at the Waypoyset Preserve in the Narrows, Mt. Hope (encampment site for Wampanoag Sachem Metacom or King Philip) and the finds by archaeologists of evidence of a rum distillery at the Belvedere and Thames Street redevelopment projects on Thames Street downtown provide evidence to the significant archaeological resources in Bristol. This Waypoyset Preserve property, considered eligible for inclusion on the National Register of Historic Places, includes artifacts from prehistoric man (7,000 B.C.). The Belvedere property, which was also considered eligible for inclusion on the National Register of Historic Places, includes the remains of a rum distillery from the early 19th century. This archaeological find was significant since this is thought to be one of

the top three rum distillery operations that have been found in the northeast.

In 2012, with funding from the collaborative partnership of RI Department of Environmental Management and the Natural Resource Conservation Service together with Town open space bond funding, the Fales and Pagnano Farms have been preserved through the acquisition of the Development Rights. These were the first farms in Bristol to be protected in this manner and we are optimistic that the program and protection of the Town's last remaining farms can continue.

In May 2013, the Town was entered into the Community Rating System of the National Flood Insurance Program The Community Rating System provides a discount to all property owners who maintain flood insurance as required by the National Flood Insurance Program . The discount is based on a scoring for eligible activities to educate residents and mitigate damage from flooding including brochures, posting information on the Town's web site, and preservation of open space that is in the floodplain. The Town's discount is currently 10%. The Building Official and the Director of the Department of Community Development became Certified Floodplain Managers in 2013. A Certified Floodplain Manager is trained on the requirements for construction in the flood plain which is important in the review of permits for construction in the flood zone.

FEMA has also developed new floodplain mapping for the Town which was finalized in July 2014. Along with this new flood plain mapping, the Town of Bristol has adopted a companion Flood Zone Ordinance Update. The adoption of the Flood Zone Mapping and Ordinance allows the Town to continue to participate in the National Flood Insurance Program which means that all property owners in the Town continue to be eligible to purchase flood insurance for their property.

In the 2015 Natural Hazard Mitigation Plan, the Town has identified ongoing public education and outreach in regards to flood zones as one of the priority actions. The education effort would include distribution of maps and literature with information on the evacuation routes and emergency shelter. The Town could also post

indicators of historic flood levels as part of the education, such as signage on some of the buildings downtown to illustrate how high past flood waters have been, or signage posted on some of the major roadways (i.e. Poppasquash Road) to indicate that the area is subject to flooding. The Town has received a grant through RIEMA for the design and installation of signage on Town-owned properties in the downtown and along roadways identified as critical flooding areas to alert residents and tourists of potential flood hazards. This is especially important to include inland areas where the risk is not as obvious.

In addition, the Town has a Hurricane Disaster Information pamphlet, development in 2014 that includes information on hurricane season/past events, disaster supply kits, safety tips, shelter/emergency contractors and RI Special Needs Emergency Information registration.

In 2010, the Town expanded the Bristol Local Historic District north to Poppasquash Road. This was one of the first implemented actions as a result of the 2009 Comprehensive Plan Update to protect the northern gateway to the Town's historic downtown.



Downtown Historic District

The Town of Bristol has a very active tree management program and has been recognized as a "Tree City USA" for the past 17 years. The Town's Tree Commission, working through the Conservation Commission works to inventory public tree resources and improve the "urban forest". The Conservation Commission manages a successful tree planting program that results in the planting of 30 to

40 trees annually along public streets and parks. Residents may request a tree and appropriate species are selected for specific planting locations. The Conservation Commission completed a Town-wide Tree Management Plan in 2000. This plan had a five year planning horizon and included goals for planting and inventorying Bristol's tree resources consistent with the State's Urban and Community Forestry Plan. The Conservation Commission continues work towards meeting the goals of this plan.



Bristol 4th of July Parade

The Town is fortunate to have many volunteer organizations that work on continuous improvement including the Bristol Blooms organization which plants and maintains the hanging flower baskets along Hope Street and Explore Bristol which works on a broad marketing campaign for the Town to increase tourism. Explore Bristol's efforts are funded in part with a portion of the Town's meal and hotel tax revenue from the State. Bristol has also partnered with the City of Newport Visitors and Convention Bureau to expand the economic growth through visitors. The Newport Bureau helps with staffing and training of the Bristol's Visitors Center.

Statement of Goals and Policies

Protect Bristol's natural landscape and resources for present and future generations by enabling local residents to take responsibility for the stewardship of their own natural resources.

Protecting historical and cultural resources that link Bristol's past with its future.

Protect and foster the cultural diversity and "small town" atmosphere that distinguishes Bristol.

Based on the critical issues described in the Introduction and the overarching goal stated above, this section presents the goals and policies developed by the Town of Bristol to guide its natural, historical and cultural resources. These goals encompass goals expressed in the other elements of this plan.

Goal 1. **Protect Bristol's natural landscape and resources for present and future generations.**

Policies to achieve Goal 1:

A. Protect Bristol's water, air, soil, plant, and wildlife resources, especially all resources that are identified as being threatened or endangered. Protect and encourage biological diversity. Conserve and manage natural resources in a manner that consistent with the contemporary vision of the town.

B. Use and update the Bristol Open Space Plan. Create a list of open space resources and access points.

C. Work to conserve and protect fields and farmlands in Bristol through acquiring development rights, acquisition, easements, or conservation restrictions by the Town or the Bristol Land Trust.

D. Ensure that future generations have well marked, maintained and enforced public access points to the bays and to fresh water resources.

E. Increase and maintain the forest cover by 25% by the year 2020.

Goal 2. Continue to protect the historic and cultural resources that link Bristol's PAST with the vision for Bristol's FUTURE.

Policies to achieve Goal 2:

A. Define, promote and protect elements of each part of Bristol's cultural heritage including its cultural and historic institutions.

B. Continue to update and expand the local and National Register of Historic Places and Districts.

C. Incorporate historic resource protection and planning within the overall community planning and development review process. Identify and protect historic, cultural and natural landscapes, plantings and features within Bristol.

D. Coordinate the historic preservation and planning policies of the various branches of local and state government.

E. Monitor the archeological resources in culturally sensitive areas in a manner consistent with state law and with standards of good archaeological practice.

Goal 3. Protect and foster cultural diversity and reinforce the character defining events, activities, and features within the town. Utilize open space for cultural activities.

Policies to achieve Goal 3:

A. Identify and reinforce the cultural aspects that make Bristol a special place to live.

B. Limit the adverse impact of proposed development upon the cultural resources of the Town.

C. Support and promote development that protects and enhances the cultural resources of the town, including its cultural institutions.

D. Tell the Bristol story through installation of interpretative signs throughout town and work on the development of a Bristol Historical or Heritage Trail both on land and on the water. Some signage is in place at the East Bay Bike Path.

E. Continue to work with Newport Chamber of Commerce and Explore Bristol to publicize and promote tourism in Bristol

through, for example, efforts such as the Bristol - Newport Heritage Trail and similar initiatives.

Goal 4. Educate and motivate the public to encourage involvement and increased awareness of every person's responsibility to preserve and protect the natural, historical and cultural character of the town.

Policies to achieve Goal 4:

A. Regulate growth and development so as to protect natural, historical, and cultural resources for future generations.

B. Educate the public to the long term value of the natural, cultural, historical resources and their relation to the quality of life.

C. Commit long term financial resources of the Town to protecting open and natural land for public purposes while ensuring that the long-term costs of maintenance and liability are considered when deciding on public acquisition of lands or land rights.

D. Monitor the state and federal government's role in resource protection and insist on improvements where they are needed.

E. To encourage creative deliberation among interested public and private parties focused on utilizing our natural, historical and cultural resources as engines for economic development.

Goal 5. Promote environmental education and conservation for children and adults.

Policies to achieve Goal 5:

A. Conduct environmental education classes that coincide with existing recreational programs and partnerships with local organizations such as Save Bristol Harbor, Bristol Land Trust, Audubon Society of Rhode Island, and Bristol Recycles.

B. Install environmental and conservation related signage and kiosks where appropriate to educate the public to ongoing environmentally beneficial projects.

C. Promote education relating to water quality and protection of water resources recognizing that Bristol is a peninsula that is surrounded by and dependent upon water.

D. Promote environmental stewardship of land and water resources in school and recreational programs geared towards children.

E. Promote efforts to increase recycling and educate residents on the importance of recycling and proper recycling methods.

Goal 6. **Promote water quality improvements to bay and other waterways in Bristol.**

Policies to achieve Goal 6:

A. Incorporate water quality benefits in all developments and reconstruction projects undertaken by the Town.

B. Monitor development activity in surrounding areas that may impact Bristol's water supply, including but not limited to water resources in Warren, the Swansea, Seekonk, and Scituate reservoir areas.

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Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 8

Historic Districts, Buildings, and Properties

BARRINGTON
WARREN
WARREN
Kickemuit River
TUPELO STREET
BACK ROAD HISTORIC DISTRICT
WAYPOYSET PRESERVE
BRISTOL HIGHLANDS NEIGHBORHOOD
Narragansett Bay
GOODING AVENUE
GOODING AVENUE HISTORIC DISTRICT
METACOM AVENUE
HOPE STREET
SAM WHITES CORNER H.D.
CHESTNUT STREET
R.I. VETERANS HOME
NORTH HOPE STREET HIST. DIST.
JUNIPER HILL CEMETERY
JUNIPER HILL CEMETERY GATEHOUSE
POPPASQUASH FARMS HISTORIC DIST.
MOUNT HOPE LANDS HISTORIC DISTRICT
BRISTOL WATERFRONT HIST. DIST.
STATE STREET
MOUNT HOPE FARM
Bristol Harbor
YACHT SPARTAN
WOODLAWN AVENUE
WEETAMOE FARM DISTRICT
Mount Hope Bay
N
CT
MA
FERRY ROAD HISTORIC DISTRICT
MT. HOPE BRIDGE

Legend

Bike Path
Major Road
Bristol
Water Body

National Register Historic Candidate Sites
National Register Historic District
Bristol Local Historic District
Roads
Parcels
Historic Site Property / Local Individually Listed Historic Property

0 0.25 0.5 1 Miles

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Town of Bristol
Rhode Island
Comprehensive Plan, 2016

MAP 9
Natural, Cultural, and Scenic Landscape & Views

BARRINGTON
WARREN
WARREN
Kickemuit River
TUPELO STREET
GOODING AVENUE
CHESTNUT STREET
HOPE STREET
METACOM AVENUE
STATE STREET
WOODLAWN AVENUE
Narragansett Bay
Bristol Harbor
Mount Hope Bay
POPPASQUASH NECK/COLT STATE PARK
MOUNT HOPE
BLITHWOLD/ST. COLUMBANS
MT HOPE BRIDGE
N
CT
MA

Legend
- Bike Path
- Major Road
- Bristol
- Water Body
- View Corridors & Scenic Vistas
- Current Scenic Roadway
- Future Scenic Roadway
- Roads
- Cultural Site Properties
- Scenic Landscapes & Views

0 0.25 0.5 1 Miles

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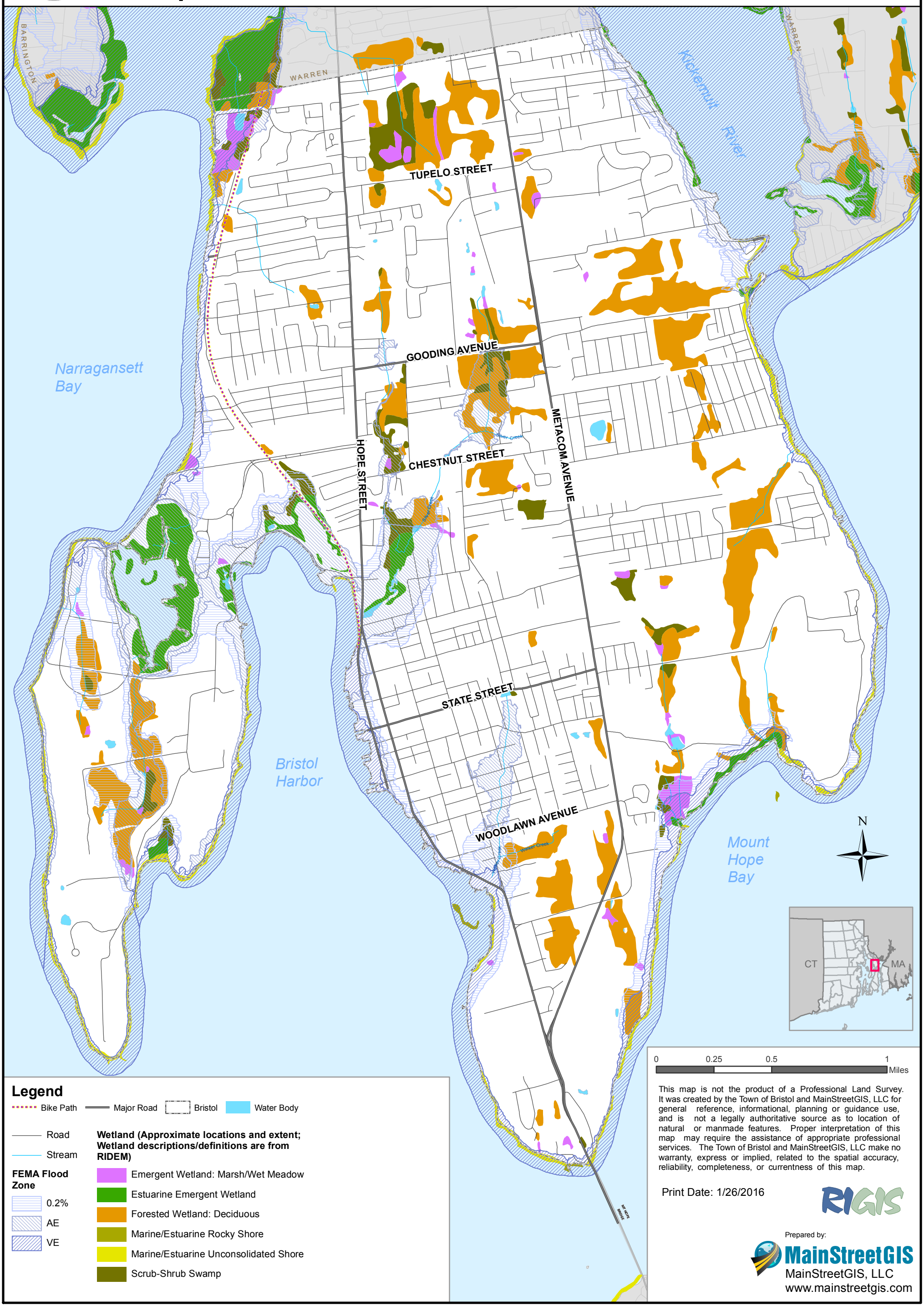
Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 10

Wetlands & Flood Zones



Legend

Bike Path | Major Road | Bristol | Water Body

Road

Stream

FEMA Flood Zone

- 0.2%
- AE
- VE

Wetland (Approximate locations and extent; Wetland descriptions/definitions are from RIDEM)

- Emergent Wetland: Marsh/Wet Meadow
- Estuarine Emergent Wetland
- Forested Wetland: Deciduous
- Marine/Estuarine Rocky Shore
- Marine/Estuarine Unconsolidated Shore
- Scrub-Shrub Swamp

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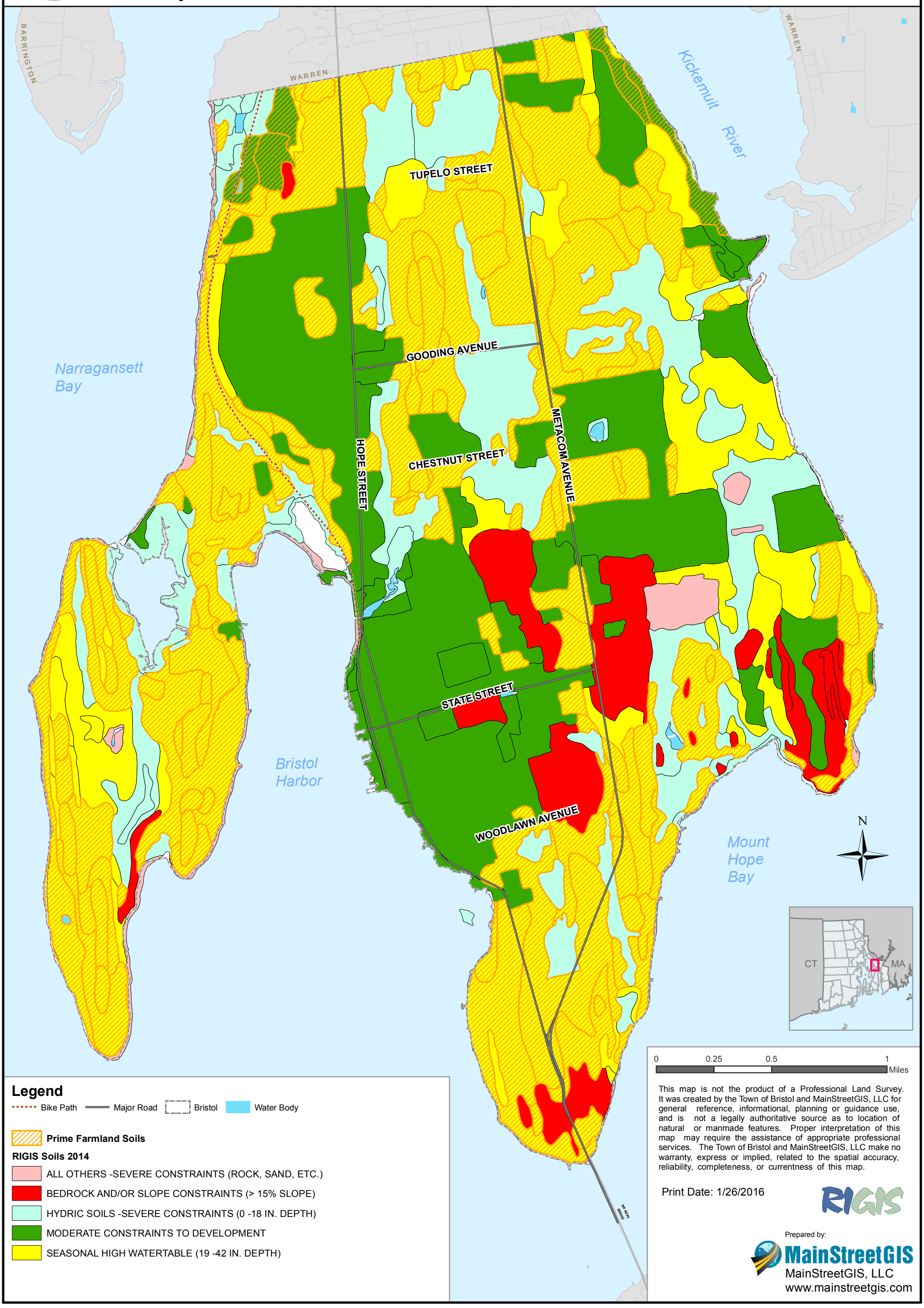
Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 11

Soils



Legend

Bike Path — Major Road — Bristol — Water Body

Prime Farmland Soils

RIGIS Soils 2014

- ALL OTHERS -SEVERE CONSTRAINTS (ROCK, SAND, ETC.)
- BEDROCK AND/OR SLOPE CONSTRAINTS (> 15% SLOPE)
- HYDRIC SOILS -SEVERE CONSTRAINTS (0 -18 IN. DEPTH)
- MODERATE CONSTRAINTS TO DEVELOPMENT
- SEASONAL HIGH WATERTABLE (19 -42 IN. DEPTH)

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7. Open Space, Conservation, and Recreation

Introduction and Background

The preservation of open space contributes, in large part, to the quality of life for Bristol residents. Bristol's open space and recreation areas enhance the Town's character and provide for the passive and active recreational needs of residents.

The community's dedication to open space preservation has led to the preservation of more than 96 acres of woodlands and active agricultural lands over the past five years. Town and state commitments have played a large role in the preservation of these properties. Preservation efforts reflect the Vision and Goals from previous Comprehensive Plans and other special planning efforts.

Bristol's dedication to open space preservation has led to preservation of more than 96 acres of land over the past 5 years.

The Town continues to protect important open space and agricultural properties consistent with the Open Space Element. Preservation of the Fales Farm and the Pagano Farm in 2011, via the purchase of conservation easements, was a cooperative effort by the Town, the United States Department of Agriculture (USDA), and the Rhode Island Department of Environmental Management (RIDEM). Funds from the Natural Resource Conservation Service were used to leverage the Town's Open Space Bond funds to purchase development rights through the conservation easements and ensured that a contiguous block of nearly 53 acres of land east of Metacom Avenue would remain in active agricultural use.



Footbridge

The Town was also able to acquire over 40 acres of undeveloped woodlands and meadow in the north-central part of town. This property, identified as the Perry Farm and St. Angelo properties, is contiguous to other open space parcels and its acquisition created a nearly 100 acre parcel of contiguous open space. The Perry Farm acquisition was completed in 2010 and was made possible in part from the Town's Open Space Bond funds and a grant from the RIDEM. The preservation of the Perry Farm property provides a crucial link in the Town's greenbelt system and links residential neighborhoods along Metacom Avenue to those on the western side of Bristol. The Town's Conservation Commission, with assistance

from residents and volunteer have been working to clear trails on the property and invite the public to enjoy the land. A new timber footbridge was installed in the spring of 2014 across a stream located at the end of Elmwood Drive. The new bridge provides access to the Perry Farm property from the west and completes the east-west link.

The Town adopted a conservation development zoning ordinance in 2010 which will be applied to protect important open space through the subdivision process. While this method of open space preservation is not as proactive as outright acquisition, it offers a method of preservation for important properties or natural features when these properties would otherwise be developed by provide land owners.



Downtown public boardwalk

Map 10, Open Space and Recreation, shows the proposed Greenbelt and Path System that is envisioned throughout town. This system is designed to link Bristol's outdoor amenities, to increase their accessibility to residents and visitors, to be an outdoor amenity itself, and to "make getting there half the fun". Parts of the system will be paved bike paths, parts will be wide sidewalks through neighborhoods and Downtown, and parts will be unpaved, shady walking paths through natural areas. One leg of the system is the East Bay Bike Path. Bristol is fortunate to be a part of the state bike path

network. The Town will maximize this benefit by creating connections to the bike path. Portions of the proposed Greenbelt and Path System are already available for use by residents, including existing Town paths and ways, utility easements, or portions where permission for passage has been granted.

In addition to its many areas of natural open space, the Town offers a wide variety of recreation programs at a variety of facilities including parks, neighborhood playgrounds, recreation fields, and a newly acquired community center.

The Town continues to invest in the improvement and quality of the Bristol Town Beach and Sports Complex. In 2010 the Town began implementation of a multi-phased master plan of improvements to the beach and surrounding recreational facilities. Through the funding assistance of RIDEM and a loan from the State Revolving Fund and the RI Clean Water Finance Agency, the Town completed the design and construction of water quality improvements at the beach.

The most significant and visible improvement was the reconstruction of the paved parking lot. This lot covers several acres of land and provides parking for all beach and sports complex activities. Existing pavement was removed and the parking lot was redesigned to allow for better circulation and additional parking. In addition, six bio-retention rain gardens were installed between parking aisles to collect and filter runoff through native vegetation and soils before discharge to a detention system.

As part of the water quality project, the Town planted over 100 trees to beautify the park and discourage Canada geese and installed pervious paver walkways to replace impervious surfaces. Native plantings of shrubs and grasses also provide a buffer to the beach and help reduce erosion. Finally, an area of impervious recreational courts that were in very poor condition were replaced with two new basketball courts, an in-line skating rink, and two tennis courts, all with proper drainage and stormwater management.

Other significant improvements at the property include the replacement of lighting, including that which illuminates the largest softball field for night use, with energy efficient LED lights. Water

quality at the Town Beach has been further improved with the design and construction of a stormwater retrofit project funded by the Town with assistance from a RIDEM Nonpoint Source Implementation Grant. This project included the construction of a gravel wet vegetated treatment system to capture and treat runoff from an existing 36-inch stormwater outfall pipe that discharged to Narragansett Bay just north of the Bristol Town Beach.

After several years of effort, the Town in 2013 took ownership of the former Quinta-Gamelin US Army Reserve Center located adjacent to the Bristol Town Beach and Sports Complex. This facility, now knows as the Quinta-Gamelin Community Center is the new home of Bristol's Parks and Recreation Department. The community center building, with over 15,000 square feet of space, is already providing the public with a host of new recreational opportunities, including indoor space for health and fitness programs, meeting rooms, and a foul weather location for the Town's youth summer camp.



Quinta-Gamelin Community Center

Bristol's most prominent natural feature as a peninsula affords residents with many recreational activities both in and along the water. Waterfront recreational amenities provide the public with many passive and active recreational opportunities. The Town is

fortunate to have numerous public access points to the shoreline, including waterfront parks, boat ramps, piers, and docks.

In 2010, RIDEM completed upgrade to the existing state-owned boat ramp off Annawamscutt Drive, which provides public access and handicapped accessible docks, a boat ramp, and parking. This boat ramp is important for public access to Mt. Hope Bay and the Kickemuit River, and provides enhanced access to the waterfront for emergency response. Other waterfront improvements include significant repairs that were undertaken at the State Street Dock in 2012. This dock and its adjacent boat ramp is a popular recreational amenity and a crucial access point for the Town's commercial fisherman. Recent repairs include restoration of masonry walls and a concrete apron along the edges of the pier, installation of new pilings and decking, and safety improvements including guardrails.



Boardwalk along Bristol Harbor

The Town has also completed repairs and improvements to the waterfront Rockwell Park boardwalk and adjacent boat docks to improve access and safety to the many visitors and users of this recreational facility. Finally, the Town recently completed a master plan design for the downtown waterfront former Naval Reserve Armory and waterfront boardwalks. Implementation of this master plan began with the bidding of a design-build project to restore the Naval Reserve Armory into a maritime center to serve residents and visiting boaters. The Naval Reserve Armory building is the current home of the Town's Harbormaster's office and was until recently utilized as a community recreation center.

The Town continues to expand and improve upon its network of parks and active recreation facilities, including neighborhood play areas and local school athletic facilities. The Town recently received a grant from RIDEM to fund improvements to athletic fields at Mt. Hope High School. These funds will be used to reconstruct field surfaces and install improved drainage. It is expected that these improvements will also provide water quality benefits to Silver Creek which flows through the high school property. The Town has also undertaken improvements to create a new park on Town-owned open space near the mouth of Tanyard Brook. The new Tanyard Brook Park will create a gateway to downtown Bristol from the south and provide increased public recreational opportunities and public education about Tanyard Brook.

In addition to the preservation of existing agricultural properties noted above, Bristol has witnessed an increase in interest and activity related to community farms and local agriculture. These activities require suitable open space and provide nutritious produce for local residents. Farmers markets have been operating for several years at Colt State Park and Mt. Hope Farm. In addition, new and previously existing active agricultural operations have expanded to several additional properties, including that which is operated by the Rhode Island Community Food Bank on private property located off Poppasquash Road.



East Bay Bike Path

The following is a current inventory of Town parks and recreation areas:

Table 7.1 Park Inventory of the Town of Bristol

Park Name	Location	Size	Amenities / Facilities
Town Beach and Sports Complex	Asylum Road	27.15 acres	beach with seasonal lifeguards, playground, picnic tables, beach volleyball court, pavilion, parking, five baseball/softball fields, basketball court, roller hockey arena, three soccer fields, two large multipurpose fields, cross country fitness trail, skate park, and a seasonal concession stand.
Town Common	High and Wood Streets	7.08 acres	bandstand, three lighted tennis courts, basketball court, softball/baseball field, and a large playground.
Rockwell Park	Thames Street	1.2 acres	harbor side park with boat docks, a playground, a boardwalk and benches.
Firefighters Memorial Park	Thames Street		park honors all deceased members of the Bristol Fire Department.
Veteran's Memorial park	Wood Street	8.1 acres	Two little league baseball fields, a basketball court, playground, picnic tables, a parking lot, and two buildings contain bathrooms, storage and concessions.
Cedarcrest Park	Fatima Drive	1.6 acres	neighborhood park features a playground, basketball court and a baseball field.
Coelho Park	Jenny Lane	3.2 acres	neighborhood park featuring two playground areas, a basketball court, soccer field, walkway, pond, a pavilion, benches, and picnic tables.
Independence Park	Thames Street	4 acres	Waterfront park located at the head of the East Bay Bike Path featuring a board-walk, walkways, fountain, municipal boat ramp with parking for boat trailers.

Park Name	Location	Size	Amenities / Facilities
Paull Park	Chestnut Street	20 acres	Wooded wetland conservation area with walking trails, a baseball field and parking area.
Sowams Park	Sweeney Lane	1.4 acres	neighborhood park featuring a playground, basketball court and pavilion.
Thomas Park	Hope Street	3.9 acres	Silver Creek shoreline, walking paths, gardens.
Walley Beach Park	Hope Street	1.3 acre	Waterfront access, beach, benches.
Union Street Beach Park	Hope Street		Waterfront access, picnic tables, benches, beach.
Manny Sousa Park	Thames Street		Waterfront park with benches and picnic tables.
Mosaico Park	Wood Street		Downtown street corner park with benches.
Legion Square	Hope Street		Downtown street corner park (a.k.a. Loafer's Corner) with benches.
Narrows Boat Ramp	Annawamscutt Drive		Boat ramp and fishing area with parking.

Table 7.2 Open Space Inventory of the Town of Bristol

Name	How acquired	Acreage	Ownership
Perry Farm	Purchase with Town and RIDEM grant funds	34 acres	Town
St. Angelo	Purchase with Town and RIDEM grant funds	6.3 acres	Town
Narrows Road	Purchase with Town funds	2+ acres	Town
Poppasquash Road	Purchase with Town funds	30,150 sq. ft.	Town
Sunrise Drive	Purchase with Town funds	10,000 sq. ft.	Town
Fales Farm	Conservation Easement by Town and USDA	36 acres	Private
Pagano Farm	Conservation Easement by Town and USDA	16.5 Acres	Private

Table 7.3 Active Agricultural Operations Inventory of the Town of Bristol

Ownership	Use	Street	Land Area	Plat	Lot(s)
State of Rhode Island*	Coggeshall Farm Museum crops, hay fields, livestock	Poppasquash Road	4 acres	181	145
Mt. Hope Trust in Bristol*	Open Space, Inn, Agricultural fields, greenhouses, livestock	115.6 acres	Metacom Avenue	137	1, 3, 6, 7, 8, 9, 13
Dudley A. & Janice C. Williams*	Agricultural Hay Fields and Woodlands	60.1 acres	Griswold Avenue	162 161 160	3 9 5
Fales Farm*	Agricultural Fields and greenhouses	35.9 acres	Metacom Avenue	134A	1, 3 & 14
Pagano Farm*	Agricultural fields, crops and woodlands	16.5 acres	Kickemuit Avenue	134B	4, 7 & 13
Usher Farm	Agricultural fields, crops and Woodlands	Metacom Avenue	110.7	138	1
Ira & Suzanne Magaziner	Agricultural community garden crops and Woodlands	Poppasquash Road	32.6	176	17
Samuel Kinder	Agricultural tree farm	Poppasquash Road	15.3	181 182	69 8 & 10
Christopher & Stephanie Still	Agricultural horse farm	Woodlawn Avenue	18.9	161B	5
William B. White "Stoney Hedge Farm"	Agricultural fields, crops and horses	Hope Street	6.1	89	58

Note: * = Property is permanently protected as open space via deed restriction or conservation easement.

Statement of Future Needs for Outdoor Recreational Facilities – The Parks and Recreation Department , in conjunction with the Recreation Board, has undertaken an assessment of the future needs for Outdoor Recreational Facilities. The Parks and Recreation Department Director also reviewed the existing facilities and the Recreation, Park

and Open Space Standards and Guidelines published by the National Recreation and Park Association. Based on these guidelines, the Town meets or exceeds the recommendation standards for outdoor recreation areas. The one future facility that we are exploring, as noted in the implementation chapter, is a Town Swimming Pool. It is also noted that the Town has 12 soccer fields – significantly more than the minimum in the standards – due the culture of the Town and the popularity of this sport. We also have 8 outdoor pickle ball facilities which has gained in popularity as a new sport.

The future needs identified are as follows (items in parenthesis refer to Action Items from the Implementation Plan):

- Continued upgrades to the Playground equipment in the parks and playgrounds, some of which is over 20 years old. This includes needed replacement of the Tennis Courts and Basketball Courts on the Town Common; (OSCR 28);

- Continued interconnection of the Town Parks and Greenways so that the parks are linked as one system of green space (OSCR 25);

- Enhancing the area around Leahy Pond including walking trails and improvements to water quality(OSCR 31);

- Repair of the existing retaining walls along the downtown waterfront parks including Independence Park, Walley Beach, Union Street Beach, Rockwell Park, and Fireman's Memorial Park. These repairs are needed for the safety of the public use (OSCR 40);

- Repair / Upgrade to the Independence Park Boat Launch and Parking Lot including ADA accessible boat launch (OSCR-38);

- ADA Accessible improvements are needed at Rockwell Park, Coelho Park and the Bristol Town Beach (OSCR 28);

The Town has also recently received a $132,000 grant from the Rhode Island Department of Health to establish a Health Equity Zone that will encompass the entire Town. This will allow us to undertake a Town-Wide Needs Assessment to identify the health issues that the community is facing. This Assessment will address the needs of all segments of the population with an emphasis on the underserved populations and those with barriers to accessing facilities due to language or cultural diversities. We will then prepare a Work Plan to address these needs and will get future grant funding to implement actions within the work plan including improvements to outdoor recreational facilities such as improved bike trails, walking trails, and outdoor classrooms.

Statement of Goals and Policies

Provide open space and recreation programs and facilities to serve the full range of present and future residents' needs. Include policies that (a) ensure access to the waterfront and bays that surround the town, and (b) increase and/or improve land areas reserved for recreation, conservation, and open space. Sustainable plans for recreation, conservation, and open space can be achieved by using a coordinated approach to include multiple uses of single sites, and diverse forms of ownership, management, and financing mechanisms to ensure benefits for future generations.

Based upon the issues described in the introduction and the overarching goal stated above, this section presents the goals and policies developed by the Town of Bristol to guide its open space and recreation planning.

Goal 1. Maximize the public's ability to gain access to, and enjoy, the waterfront and bay areas that surround the Town.

Policies to achieve Goal 1:

A. Acquire additional beach and/or waterfront frontage along Bristol's shoreline.

B. Improve and maintain public boat launch sites along Bristol Harbor, Narragansett Bay, Mount Hope Bay, and the Kickemuit River, including small areas for kayaks.

C. Wherever possible, protect or regain the public's ability to view the bays and walk to the water's edge.

D. Maintain and publicize existing public rights of way and public access points throughout the Town.

Goal 2. Increase and improve land area reserved for passive recreation, conservation, and open space.

Policies to achieve Goal 2:

A. Acquire additional land in appropriate areas for passive recreation and trails (walking, biking, bridle, etc.) to enhance the quality of life of Bristol's increasing population.

B. Acquire additional land for purely conservation purposes, to be left in its original pristine state and also to protect diminishing ecologically sensitive areas.

C. Protect areas which provide greenbelts, open space, and relief from development — including Town-owned parks and open space parcels — through various layers of protection, such as conservation easements.

D. Continue efforts to increase, acquire, and protect existing areas of the Silver Creek Watershed Area.

E. Dedicate various Town-owned lots for sustainable and organic community gardens for the community's use. These gardens offer a sense of pride in one's community, help offset rising food costs, and give the opportunity for residents without yards to connect with the land.

Goal 3. Create active recreation programs and facilities to serve the full range of Bristol residents.

Policies to achieve Goal 3:

A. Ensure accessibility to open space and recreation areas for a diverse segment of the population.

B. Maintain emphasis upon a variety of imaginative new programs for recreation.

C. Support recreation's role as a community activity that brings people together.

D. Continue to encourage fair and equitable use of Town recreation facilities for all community groups through sensitive scheduling and sharing of facilities.

E. Acquire additional land for active recreation to enhance the quality of life of Bristol's increasing population.

F. Develop additional small neighborhood parks and open spaces in residential areas.

Goal 4. **Plan for recreation and conservation of open space by using a coordinated approach -- to include multiple uses of a site, and diverse forms of ownership, management, and financing.**

Policies to achieve Goal 4:

A. Coordinate public and private recreational opportunities to avoid duplication and to ensure efficient and cost effective use of recreational facilities.

B. Cooperate and coordinate with the State of Rhode Island, particularly in regard to the future of the state-owned Colt Park and the Veterans' Home property.

C. Develop recreation complexes rather than single purpose facilities, for example through combining education and recreation, or linking active recreation areas with quiet enjoyment of conservation lands or passive recreation. This would require coordination with the school and recreation departments.

D. While respecting the privacy of residences, connect recreation areas, neighborhoods, and as many other Town facilities as possible with a system of walkways, hiking trails, bikeways, greenbelts, and bridle trails.

E. Continue to use the Town budget process to acquire open space parcels and develop recreation facilities within the financial capabilities of the Town, but use funds more

effectively, particularly in accommodating the needs and responsibilities of different agencies. Possibilities include, utilizing private, other local, and state agencies, as appropriate to receive and manage contributions designated for the purchase of land, easements, or development rights and to partner with the Town on the acquisition of properties for open space preservation.

F. Continue to act upon the options for acquiring dedicated open space lands through the Subdivision Rules and Regulations including impact fees.

G. Explore the potential recreation opportunities resulting from the closure of the Minturn Farm Area Landfill.

H. Continue to acquire and/or protect land in the area of Mount Hope through local, State and Federal monies, through local and State regulations, and through private foundations and land donations.

I. Use all available resources to purchase development rights for preservation of the last remaining farms in Bristol.

J. Consider potential recreational uses for decommissioned downtown school buildings.

K. Consider the recreation needs of students in future school facility plans.

Implementation Strategies

Overview of Action Strategy

The implementation of Bristol's open space and recreation goals and objectives focuses on the following concerns:

- the existing and projected needs for outdoor recreational facilities, primarily playground and athletic field facilities
- maximizing the use and potential from existing recreational facilities by increased maintenance and upgrading, as necessary in cost effective manner

- the protection of environmentally sensitive and unique parcels of land
- the preservation of open space
- increasing the public's convenient access to outdoor amenities by locating them near neighborhoods and by linking them with a Town-wide path 'green-belt' system.

Implicit in this plan is the recognition that as development increases in the community, the amount of open space remaining will diminish. A failure to respond to the recreation, conservation, and open space needs of the community may foreclose opportunities to achieve the type of town Bristol residents envision for the future.

The Town has acquired a number of open space sites and developed recreational facilities in many parts of the community. A high priority for the Town will be to maintain and improve existing recreation and open space facilities so that townspeople may get the most use and enjoyment possible from these assets. The Town plans to commit Town resources to this end and also to help mobilize volunteer efforts that tap one of the most important resources enjoyed by the community: the energetic care and concern of citizen groups and local businesses.

Acquisitions and Development

Recommendations for land acquisition and site development reflect the Town's commitment to meeting its outdoor recreational needs. The recommended acquisitions and development proposals reflect an increased awareness of the potential impacts from the development of sensitive environmental areas, of sites unique to Bristol and its culture, and of areas of open space and recreation that have historically defined the community.

A critical component of a solid acquisition strategy will be input from the Conservation Commission to prioritize and advise town leaders on purchase decisions.

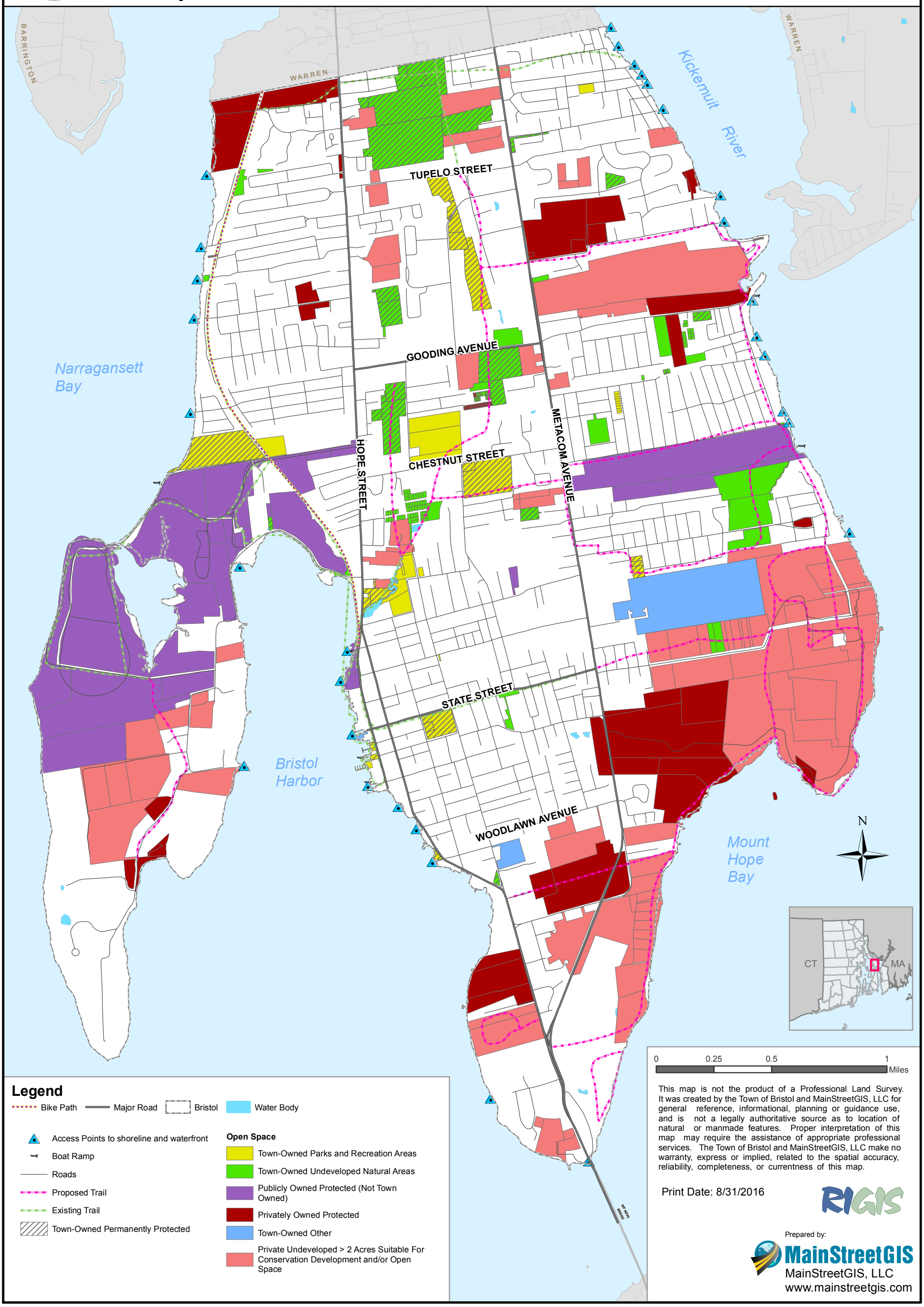
Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 12

Open Space, Conservation, Recreation, and Other Undeveloped Properties



Legend

- Bike Path
- Major Road
- Bristol
- Water Body
- Access Points to shoreline and waterfront
- Boat Ramp
- Roads
- Proposed Trail
- Existing Trail
- Town-Owned Permanently Protected

Open Space

- Town-Owned Parks and Recreation Areas
- Town-Owned Undeveloped Natural Areas
- Publicly Owned Protected (Not Town Owned)
- Privately Owned Protected
- Town-Owned Other
- Private Undeveloped > 2 Acres Suitable For Conservation Development and/or Open Space

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Print Date: 8/31/2016

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8. Circulation and Transportation

Introduction and Background

Bristol's location on a peninsula strongly defines the Town's circulation pattern. The only routes into Bristol from the north are Routes 136 and 114. From the south, only Route 136/114 via the Mount Hope Bridge serves the Town. There are no east–west transportation routes with the exception of the Prudence Island Ferry that docks at Bristol Harbor.

The Town has a strongly defined street configuration due to the historic pattern of settlement established during colonization and the degree of development that has already occurred.

There are approximately 120 miles of Town-maintained streets in Bristol. The state is responsible for maintenance of Metacom Avenue, Hope Street, Gooding Avenue, Franklin Street and Griswold Street.

The major opportunities for redefining the circulation pattern, as articulated in the 2009 Comprehensive Plan, are still relevant. They include connecting street networks allowing north-south movement that avoids constant entering and exiting Metacom Avenue and Hope Street; a service road along the west side of Metacom Avenue to connect the commercial areas; and a new street following the National Grid line easement to the north through Warren.

The State has designated Route 114 (Hope Street and Ferry Road) and High Street as Scenic Roadways under the State's Scenic Roadway Program. As a Scenic Roadway, the Scenic Roadways Board reviews all changes to the roads and controls tree trimming and other work.

The Scenic Roadways Board completed a Scenic Highway Corridor Management Plan. This Plan recommends strategies for the preservation and enhancement of the roadways. In addition the town should look to extend the state scenic roadway north of Mount Hope Bridge along Route 136 to Mount Hope Avenue to help preserve the character of this area.

Although the widening of Metacom Avenue is not presently feasible it is imperative that Metacom Avenue be evaluated as to restructuring to accommodate north-south traveling lanes, turning lanes and pedestrian path. In 2007 at a joint Town Council and Planning Board meeting, the Metacom Corridor Management plan was presented. This Plan put forth recommendations for improvements that need to be explored and implemented.

They include, but not limited to the following short-term recommendations:

- Left turn lanes at high hazard intersections
- Speed limit reduction
- Signal timing
- Sidewalks
- Crosswalks and pedestrian signals
- Bus stops
- Neighborhood interconnections
- Longer term recommendations include the use of roundabouts and improvements to certain intersections.

The Plan addresses aesthetics issues, landscaping guidelines, scale, architecture, site design and layout, sustainability, and lighting and signage.

The Metacom Corridor Management Plan needs to be used as a guideline by the Planning Board in addressing future Metacom Avenue development.



Emergency route signage

A long term goal of the Town, as articulated in the Comprehensive Plan, has been the construction of a service road from Gooding Avenue to Tupelo Street. This road would allow drivers to move from place to place along the west side of Metacom Avenue without the need to keep going back onto Metacom. Town Council approval of a zone change for the property at the northwest corner of Gooding and Metacom Avenue for the Walgreens Pharmacy required a key link in this service road. This link connected Gooding Avenue to the Stop and Shop Plaza which had been built with a stub road connection. The result of this was very positive to traffic flow in that area. The duplication of this is strongly urged in other areas where it makes sense.

Projects that are currently in the Rhode Island Transportation Improvement Program for Bristol include:

- Poppasquash Road Bike and Pedestrian Path (preliminary evaluation – no commitment to funding);
- Colt State Park Street lighting restoration (2015 anticipated year of implementation)
- Hope Street sidewalks (partially completed; on-going)
- Stormwater enhancements (Bristol/Warren –Pending state funding)
- Route 114 pavement (Downtown Bristol completed)

The Town should work directly with the Rhode Island Public Transit Authority (RIPTA) in the promotion of public transportation through the improvement of the commuter experience in Bristol. Suggested improvements include a designated Park and Ride facilities at the corner of Gooding Avenue and Hope Street and at Metacom Avenue, and protected bus stops that match the surrounding environment and provide safe access for boarding at bus stops. The ability for a bus to pull closer to the curb allows better access to the bus and does not impede the flow of traffic especially in downtown. The Town needs to take advantage of financial incentives promoted by RIPTA to achieve the above.



RIPTA Bus 60 at Hope and State Street bus stop

The 2004 and 2006 voter approved bond referendums included improvements to sidewalks and streets. The Town has recently completed the sidewalk program throughout Town with a focus on the downtown area and neighborhoods to improve existing sidewalks. The sidewalks along Thames Street were installed with the street, which will further enhance the walkability of the downtown area.

RIDOT completed upgrades to high hazard intersections along Metacom Avenue which included installation of a left turn lane and pedestrian crossing signal and crosswalk at Fatima and installation of a pedestrian crosswalk and pedestrian crossing signal at Tupelo and Bayview. Safety improvement work is planned to continue on the intersections at Chestnut/Annawamscutt and Bayview.

The Town worked closely with RIPTA on improvements to the bus service through Town. With the coordinated effort, the Town was able to assure that bus service continued on Metacom Avenue with an added route.

Bristol and the Town of Warren partnered on the submission of a RI Statewide Planning Challenge Grant for exploring the feasibility of creating a pedestrian path along the National Grid Easement from Tupelo Street in Bristol to Child Street in Warren. This study is currently underway.

Accomplishments

As a result of damage suffered to the wall along Poppasquash Road from Superstorm Sandy, RIDOT was able to repair the walls along a portion of the road, repair the culverts, and resurface the roadway. More work is needed, however, as these repairs did not take into consideration the effects of sea level rise which will impact this causeway. As stated in the Natural Hazard Mitigation Plan, the Town will work towards a shared agreement with the State of Rhode Island (DEM) to assess the feasibility of an additional inland opportunity for an alternate route along lower Poppasquash Road, as well as a second opportunity along the new right-of-way for water lines along Poppasquash. Other roads in the Poppasquash area cross bridges at either Mill Gut or Mill Pond. Residents should be made aware of this route with signs posted. This is important not only for the residents but for the general public, including tourists, who may be visiting the area.



High tide flooding at Poppasquash Road

The Town has been recognized nationally for its planning efforts and in 2009 it received the Distinctive Destination award from the National Register of Historic Places as one of 12 distinctive destinations in the country. Family Circle magazine also recognized the Town as one of the 10 best places to raise a family.

Statement of Goals and Policies

Increase the ability to travel about town with ease, alleviate congestion and air pollution caused by local and regional traffic patterns, adopt a "Complete Streets" policy, and take into consideration the effects arising from natural hazards, climate change, and sea level rise in the transportation decision-making process. Support economic development through a well-planned and high quality transportation system, provide adequate parking facilities, and provide an effective wayfinding system while maintaining key elements of the Town's character.

Based on the critical issues described in the Introduction to the Circulation Element and the overarching goal stated above, this section presents the goals and policies developed by the Town of

Bristol to guide its circulation planning. These broad goals encompass goals expressed in the other elements of this plan.

Goal 1. Increase the ability to travel about town with ease.

Policies to achieve Goal 1

A. Provide more alternatives for residents to move about within Bristol without using Metacom Avenue or Hope Street.
   - Improve links between neighborhood streets so that short cut use by regional traffic is discouraged.
   - Integrate neighborhoods, services, and recreation areas with bikeways and walkways. (See the Path System described in the Open Space, Conservation and Recreation Element)
   - Continue linkage of Town's nature trails.
   - Reference the Poppasquash Road Pedestrian and Bicycle Facility report for guidance on connecting Hope Street to the East Bay Bike Path and the Colt State Park Bike Path.

B. Provide sidewalks or paths in areas where none exist. Encourage sidewalks in new developments that will connect with other sidewalks and trails. Greater focus on sidewalks should be directed to Hope Street, Ferry Road, and Metacom Avenue.

C. Manage parking, permitted land uses, signs, and traffic speed so as to protect the rights and safety of pedestrians and to encourage more walking.

D. Require future subdivision roads to link with the overall street system and provide interconnecting links to avoid cul-de-sacs.

Goal 2. Alleviate congestion caused by regional traffic patterns.

Policies to achieve Goal 2

A. Encourage modes of transportation that are alternatives to the automobile.

- Keep options open for rapid and water transit from Bristol to Providence to Newport and light rail from Bristol to Providence to Newport.
- Consider how commuter bus service or van pools might serve Bristol residents.
- Work with RIPTA in identifying, establishing and promoting a designated park and ride lot on both Hope St (Route 114) and Metacom (Route 136)
- Provide safer access to boarding buses at bus stops.

B. The recommendations from the Metacom Avenue Corridor Management Plan should be required by the Planning Board in addressing development on or near Metacom Avenue.

C. Reduce and/or eliminate the curb cuts along regional street systems. Only consider new curb cuts if there is no other way to access a property.

D. Examine the feasibility of providing for most neighborhoods the option of accessing Route 114 or Route 136 via an existing signalized intersection.

E. Avoid regional traffic solutions, such as a bypass, that would benefit only regional travelers while hurting impacted neighborhoods and local businesses.

F. Minimize air pollution and surface water runoff pollution by encouraging alternative forms of transit to the gas powered automobile.

G. Coordinate all circulation plans with RIDOT on state roads.

H. Collaborate with other towns (Warren and Barrington) to examine more efficient alternatives for transportation between the towns.

Goal 3. Support economic development through a well-planned transportation system.

Policies to achieve Goal 3

A. Maintain adequate traffic flows through commercial areas so as to support the local economic base. Include wayfinding to encourage people to park their vehicles and walk to destinations.

B. Improve the quality of roads and/or transit systems to commercial and industrial areas.

C. The installation of bicycle racks strategically placed throughout the Town will promote alternative transportation and create an invitation for visitors from the bike path to stay longer in town, therefore promoting area businesses.

D. Explore means to provide additional parking in the downtown to support economic development while protecting the areas character.

E. Study the possibility to expand alternate trolley service that could include an agreement with Roger Williams University to utilize their shuttle service.

Goal 4. Maintain a high quality transportation system.

Policies to achieve Goal 4

A. Continue with an annual pavement management program as recently adopted.

B. All roads should be built only in accordance with the standards of a public road.

C. Maintain and improve the Town's roadways and drainage.

D. Continue to work with RIPTA to determine how its transit program might be altered to better support this plan.

E. Work with RIPTA in identifying placement of bus shelters along the RIPTA bus route. Utilize to the fullest the financial incentives provided by RIPTA to construct shelters, as needed.

Goal 5. Provide adequate parking facilities for auto users without losing key elements of the town's character

Policies to achieve Goal 5

A. Discourage demolition of historic and other buildings important to Town's character for the purposes of providing parking lots.

B. Work with the private sector to provide parking facilities.

C. Explore the creation of parking areas for regional transit facilities.

D. Continue to set high standards for design of parking facilities including landscaping, buffering, handicapped accessibility, pedestrian walkways, and lighting.

E. Protect the environment from parking area stormwater runoff.

F. Improve signage to direct the public to designated public parking areas, in addition to providing clear and concise signage as to rules governing regulations related to a given parking area.

Town of Bristol
Rhode Island
Comprehensive Plan, 2016

MAP 13
Circulation

Maintain Routes 136 & 114 as major north-south arterials

Implement the Metacom Ave. improvements as set forth in the Metacom Avenue Corridor Management Plan

Explore the use of the power line for a transportation route

Develop a connected bike/pedestrian path across the end of town

Designate park & ride on Metacom Avenue

Maintain the bike path; Combine with light rail in the future

Provide a West Shore connecting street loop

Implement neighborhood street connections identified in the Metacom Avenue Corridor Management Plan

Plan for climate change adaptation

Implement Poppasquash Road pedestrian and bicycle facility for connecting bike path to Hope street

Proposed improved parking facility downtown

Keep options open for rapid and water transit from Bristol to Providence and Newport

Proposed scenic roadway (arrows indicate extent)

BARRINGTON
WARREN
Kickemuit River
Narragansett Bay
Bristol Harbor
Mount Hope Bay
MT HOPE BAY
PORTSMOUTH
HOG ISLAND
TUPELO STREET
New service road See Metacom Avenue Corridor Management Plan
Potential Parking Facility Park & Ride
GOODING AVENUE
Potential Park & Ride
Potential Parking Facility
CHESTNUT STREET
Nature trail linkage
HOPE STREET
METACOM AVENUE
Provide a Central Corridor connecting street loop
Examine an expanded in-town transit system between the waterfront and the Route 136 corridor
STATE STREET
WOODLAWN AVENUE
114
136
P
R

N

CT
MA

0 0.325 0.65 1.3 Miles

Legend

- Bike Path
- Major Road
- Bristol
- Water Body
- Proposed Roundabout
- Existing Electric Vehicle Charging Station
- Proposed Future Electric Vehicle Charging Station
- HwyNumbers
- Circulation Routes
- Existing Scenic Roadway
- New Neighborhood Connections
- State Artery
- Major Collector
- Minor Collector
- Public Transit Route
- Metacom Ave. Corridor Mgmt. Plan Improvements
- Pedestrian/Nature Trail/Boardwalk
- Power Line
- Roads

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Print Date: 1/26/2016

RIGIS

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9. Services and Facilities

Introduction and Background

In 2010, the Town approved a bond referendum of $9 million dollars to fund improvements to the downtown historic public building, street and drainage improvements and open space acquisition. This funding is being used to help restore the downtown Naval Reserve Armory in conjunction with the grant to renovate the building into a Maritime Center.

Following the historic March 2010 floods, the Town was able to secure just over $4 million in grants from the US Economic Development Agency Special Appropriations and US HUD Community Development Block Grant –Disaster Recovery Program to complete Phase 1 of the Tanyard Brook Culvert Improvement project. The project extended from the outfall at Walker's Cove north to Garfield Avenue and included installation of a tide gate at the outfall with an enlarged culvert. This was a long anticipated project by the Town and will mitigate flooding in the Tanyard Brook watershed which includes a low-moderate income residential neighborhood and many businesses. The planning for Phase 2 of this culvert improvement project is currently underway.

The Town continues to work on improvements to the downtown waterfront that include amenities for the commercial fishermen. Phase 1 of the State Street Dock Upgrade was completed in 2012 which substantially improved the crumbling and unsafe wharf. Improvements included a walkway around the wharf, an area for loading and unloading of commercial fishing boats, and

infrastructure for future improvements such as lighting, installation of a crane, and water service.

Existing Condition and Future Needs

Library

Existing Condition

The historic Rogers Free Library building, located in the downtown, was expanded in 2008; therefore no change in the condition or capacity of this building is anticipated over the 20-year planning horizon. The library is an anchor to the economic development and vitality of the downtown and provides many important services to the residents.

Future Needs

There are no anticipated issues related to the administration of the service or the effectiveness of the service. However, the Director of Library Services reports that they are in the process of creating and disseminating a survey to learn what the public's needs are for improved level of service. The Director indicates that the horizon for future library services includes the following:

- Increased electronic resources/accessing resources through mobile devices from anywhere and everywhere (downloadable materials);
- Increased services to an aging population especially those in assisted living, elderly apartments, and nursing homes;
- More and diverse programs for every age group;
- Minecraft program for children and middle school;
- Increased literacy training;
- Closer partnership with RI Department of Labor and Training for unemployed and underemployed.

Police Department

Existing Condition

The Bristol Police Department is a nationally and state accredited police Department. Although new to the law enforcement field, universities, hospitals and other professional organizations have, for many years, undergone similar accreditation processes to prove compliance with a set of professional, nationwide and state standards. Accreditation serves to distinguish participating organizations as having met professional standards of conduct and service. The Bristol Police received its initial National Accreditation Award in November 2007, and most recently was reaccredited in November 2013. The initial State Accreditation Award was received in December 2013. Each Accreditation cycle is for three years, consisting of an onsite assessment and panel review in front of the commissioners.



New Animal Shelter and Humane Education Center

The Town's new Animal Shelter and Humane Education Center has recently been completed. This building, located at Minturn Farm Road, replaces the current shelter which was in a serious state of disrepair and has been razed. The new shelter was designed with a state of the art layout and will serve the Town for many years to come.

Future Needs

The Town has recently acquired the property adjacent to the Police Station on Bayview Avenue. The intent is that the land will be available for a future expansion of the Police Station. This may occur within the 20 – year planning horizon.

Fire and Emergency Services

Existing Condition

The Town is very fortunate to have a volunteer Fire Department. In 2011, the Town completed construction on the new Fire Department Headquarters at Annawamscutt Drive. This new building was built as an addition to the existing Hydraulion Fire Station and includes rescue and an emergency operations center. The Building was constructed with energy conservation and sustainability in mind and earned a LEED Silver certification. As part of this transition for the rescue department, the Town sold the former rescue building at the intersection of High and Franklin Street which was no longer large enough to garage the modern rescue vehicles.



New Fire Department Headquarters

Future Needs

The Everready Fire Station located on Thames Street may be impacted by the effects of climate change. This location is also within the Flood Zone. The Town should start to explore an alternative location for siting this facility.

Parks and Recreation Department - Indoor Recreational Facility and Community Center

Existing Condition

The Town was fortunate to receive the former Quinta Gamelin Army Reserve Building on Asylum Drive in Colt State Park for use as the new Community Center. This building is the perfect fit for the programming that the Department of Parks and Recreation conducts and is adjacent to the other Town-owed recreational facilities at the Town Beach. The Town Beach parking lot was improved with ARRA Funding to make it a green parking lot and has received state recognition for the design and implementation. As a result of the parking lot improvements and new drainage system on the north side funded in part with a RIDEM 319 grant, the Town beach has not been closed as a result of high bacteria levels in two years. This is quite an accomplishment and is used as a model for other projects in the State.

Future Needs

In 2013, through the BRAC process, the Town of Bristol acquired the Quinta Gamelin Army Reserve Building. This building, located adjacent to other Town and State owned outdoor recreation facilities, is now the Quinta Gamelin Community Center. The building was in very good condition when it was turned over to the Town so there are no expected changes in the condition or capacity of the infrastructure anticipated over the 20-year planning horizon. The Town recently received a grant from FEMA for the purchase and installation of a generator on this building which will also serve as an emergency shelter. The building includes a full gymnasium, meeting rooms, classrooms, and an adult community room. The Recreation Department is exploring the potential for swimming pools at the facility which may prove feasible within the next 20 years. More study is needed on this however. The Town of Bristol maintains a high level of service with the programs offered, including fitness and exercise equipment and classes; a robust summer camp program (this year had over 600 children in attendance); arts/crafts/photography workshops; seminars and trainings; after school programs; and, environmental programs. The Town recently received a Health Equity Zone grant which will enable the Town to determine the needs for health initiatives and develop a work plan for implementation

over the next 4 years. The needs assessment will be Town-wide and identify areas for improvement including access to healthy food, walkability, bike-ability, and other infrastructure needs. The Quinta Gamelin Community Center will continue to develop activities to address a multiple of social, developmental, health and wellness programming. The "After School Program" will fill the need to supervise and protect our adolescent population during their most crucial time of the day. The summer camp "Camp Poppasquaw" will provide a series of activities which are very affordable. The partnership with the Bristol Warren Regional School District will assure that emotional and educational learning continues throughout the day within the entire community.

Senior Center

Existing Condition

For more than 40 years, the Senior Center has operated with a mission to provide seniors a safe, supportive and nurturing environment. The Center acts as an advocate for the rights and well-being of our senior citizens on a wide variety of issues. It is a place where seniors can access information about resources, programs and services available on the local, state and federal levels. The Center, located in the historic Benjamin Church Home, is open Monday through Friday from 8:30 – 3:30 and offers many social, wellness, and educational opportunities for adult members 55+ in the Bristol area, with programs specially designed to meet the interest of the generation they serve. Programs include a daily meal in a social setting, weekly bingo, cards, knitting and dancing, services such as trips to the grocery store or medical appointments, and recreational outings. Wellness programs are offered with Visiting Nurses of Bristol County. The Center also provides assistance with accessing services such as tax preparation, housing, health insurance and food stamp (SNAP) enrollments. The Center addresses issues of access by providing free transportation using the Center's own bus and driver.

Future Needs

The Senior Center is located in an historic building that is listed in National Register of Historic Places. The building layout can be challenging for the use by the senior citizen population and the location is lacking in parking. As the population of seniors is

expected to increase the Town should consider a study to determine improvements to the functionality of this space and/or the need and potential for re-locating these services.

Drinking Water

The Bristol County Water Authority (BCWA) provides water to approximately 16,900 customers in Barrington, Warren and Bristol, an area with a population of about 50,000 people. Over 85 percent of the connections are for residential uses. The supply system includes four surface water reservoirs, two treatment plants and the interconnections with Providence Water.

The average water usage is 3.2 million gallons per day (MGD), with demand generally declining over the last ten years. The Authority's contract with Providence Water, and the system design, allows the BCWA 7.5 MGD from Providence. Thus, the Town has plenty of remaining capacity. Storage is provided in five storage facilities that can contain up to 3.9 million gallons.

The main issue for the Authority is redundancy in case of a problem with the Providence supply. BCWA is looking for an additional connection to Pawtucket Water. A copy of the 2010 Executive Summary of the BCWA Water Supply System Management Plan is appended to this plan and it provides more specific details of the water supply system and related infrastructure.

The Bristol County Water Authority recently completed installation of water line upgrade which will provide improved water service to the Poppasquash Road neighborhood for fire protection.

The Bristol County Water Authority (BCWA) currently provides water service to nearly all developed areas of Bristol. BCWA does not currently have plans to expand water service into any significant areas with the exception of the Kickemuit Avenue and Smith Street area (Shown on Map 7). In several areas of Bristol, primarily on the easterly side of town, there is a need to connect and loop neighborhood water lines so that water pressure and water quality might be improved. In addition, interconnection between neighborhoods eliminates the threat that service within a large area would be disrupted in the event of a break or other damage to an existing line.

Although the vast majority of homes and businesses in Bristol are serviced by public water supplied by BCWA, there are an undetermined number of properties that utilize private wells for their drinking water supply. Soils in Bristol consist primarily of glacially deposited sediments identified as till. Till typically consist of tightly compacted boulders, gravel, sand, silt, and clay with low permeability and is not ideally suited for drinking water wells. The RIDEM has classified the majority of Bristol's groundwater resources as suitable for drinking water use without treatment. However, groundwater resources located within the downtown area and more densely developed neighborhoods to the east extending towards the Town's transfer station and former landfill may not be suitable for drinking water use due to presumed degradation.

Wastewater

Existing Condition

In 2000, the Town adopted a Wastewater Facilities Plan. This plan is a long range (20-year) planning document for management of the Town's wastewater collection and treatment system. It also provides direction for decisions regarding actions that affect the wastewater facilities.
A summary of recommended projects to improve the reliability and effectiveness of the wastewater collection system and treatment facility are provided in the report.

A Facility Plan Reaffirmation was completed in 2011 and updated the status of the projects recommended in the original facility plan as well as recommending additional projects to improve the reliability and effectiveness of wastewater collection system and treatment facilities for the Town.

The following projects were completed between 2009 and 2015.

Wastewater Treatment Facility Improvements:

- WWTF Improvements: Rehabilitation and improvements to septage receiving facility, primary clarifiers, sludge management, rotating biological contactors (Replacement of 6 of 24), final clarifiers, disinfection facilities, electrical and

instrumentation and controls. This work was completed in 2013.

- Headworks and RBC Improvements: Project includes improvements to the headworks facility and replacement of an additional six RBCs. Construction started in July 2014 with anticipated completion date in the Fall of 2016.

Collection System Improvements:

Infiltration and Inflow reduction projects:

- Hope Street Sewer Rehabilitation, WTF Improvements, 2012
- Subarea 24 (Pilot Area) Sewer Rehabilitation, 2014
- Inflow Source Relocation and Associated Drainage Improvements, 2014
- Backflow Prevention Program, 2014

Sewage Pumping Station Improvements:

- Mount Hope Pumping Station Improvements, 2014

Compost Facility:

- New Front End Loader, 2011

Responses to EPA Administrative Order:

- Development of CMOM program, ongoing
- System Cleaning and TV inspection program, ongoing

Future Planned Projects

Pumping Station Improvements:

- Constitution
- Burke Road
- Silver Creek
- Broad Common Pumps
- Ferry Road Pump Station (Upgrade and Generator)

Wastewater Treatment Facility:

- RBC Replacement
- RBC Fiberglass Covers
- Primary Clarifier Aluminum Covers
- Bisulfite Bulk Storage
- Security Improvements / Fencing (Including Pump Stations)
- Compost Facility Upgrades (Blowers, etc.)
- UST Removal and Replacement with AST
- WWTF Asphalt, Drainage

Collection System:

- Misc. Sewer Rehabilitation (Trenchless)
- Misc. Sewer Repair (D&R)
- Maintenance Equipment (J Hook Truck, Water Jet Truck)
- Private Property Sump Pump Removal
- GIS Mapping Updates

EPA Administrative Order:

- Flow Metering
- Misc. Inflow Removal/Relocation (Additional Locations)
- Revise Capacity Assessment Report
- Subarea 24 (Mt. Hope North) Inflow Removal/Relocation (Town R-O-W)
- Subarea 1 (Mt. Hope South) Inflow Removal/Relocation (Town R-O-W)
- Facility Plan Amendment (if necessary for EPA AO Improvements)
- Collection System Improvements for AO Compliance (i.e. Storage) (*1)
- Collection System Cleaning and CCTV Inspection

- Quarterly and Annual AO Compliance Reporting

Although the vast majority of properties and homes in Bristol are serviced by public sanitary sewer, there are some that rely on private on-site sewage disposal systems. The Town of Bristol adopted and RIDEM approved an On-Site Wastewater Management Plan in 2009. This plan included an inventory of all developed properties not serviced by public sewers. The Town has also adopted an Onsite Wastewater Management ordinance regulating private septic systems and requiring regular inspections, maintenance, and if necessary upgrades or replacement. The Water Pollution Control Department offers a program for financial assistance with septic system pumping. In addition, with the approval of the above plan and ordinance, residents are eligible to participate in a State funded program that offers low interest loans to homeowners to fund repairs or replacement of failing septic systems

Wastewater Department does not have any plans to extend sanitary sewer lines into new service areas beyond what would be required for any new developments within existing sewered areas (for example, new sewers in August Farm development off Butterworth Avenue). In addition, there may be some expansion to connect to isolated properties that currently do not have sewer and utilize an on-site sanitary disposal system. One potential expansion area is on the northern end of Poppasquash Road to Bristol Marine and the Bristol Yacht Club properties (Shown on Map 7). These private properties are currently pursuing a connection from the existing line in Colt State Park to their facilities. This would allow for the expansion of business opportunities at the Bristol Marine property and possibly improve water quality in the bay by eliminating existing septic systems.

Bristol-Warren Regional School District

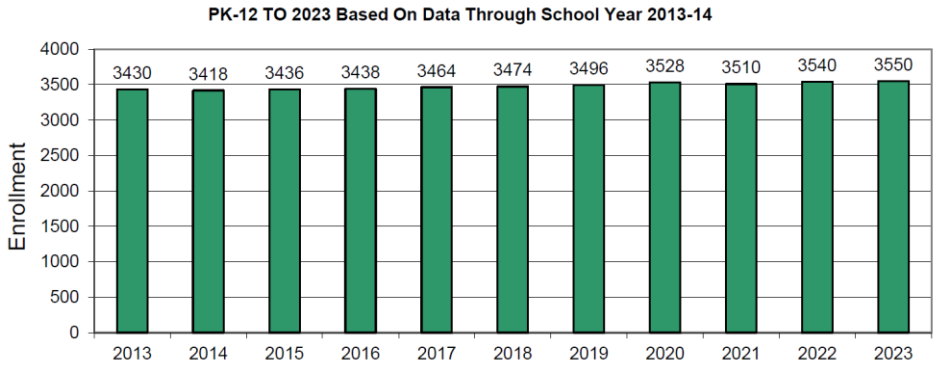
Existing Condition

The Bristol Warren School District comprises six school buildings:

- Colt Andrews School – Grades K-5 in Bristol
- Guiteras School – Grades K-5 in Bristol
- Hugh Cole School – Grades K-5 in Warren

- Kickemuit Middle School – Grades 6-8 in Warren
- Mt. Hope High School – Grades 9-12 in Bristol
- Rockwell School – Grades K-5 in Bristol

According to data made available by the School District, enrollment in the Fall of 2013 stood at 3,386 students (1,630 students in grades K-5; 743 in grades 6-8; and 1,013 in grades 9-12). The two factors that will have a significant impact on future enrollments are a decline in the number of births to Bristol-Warren residents and, to a greater degree, the resumption of in-migration (which had slowed, in part due to the real estate slowdown). However, the overall impact is relatively small. As shown in the charts below, enrollment is projected to increase to 3,550 students by 2023 or approximately 4.5 percent over the next ten academic years. It is noted that these projections could change over time – the projections for the first five years are general deemed to be more reliable than years 6 – 10.



Future Needs

The School Department has created a Capital Project Plan to prioritize needed projects within the next 10 years. Those identified are as follow for the school buildings in Bristol:

- Guiteras, Colt Andres, Rockwell and the Mount Hope High School are targeted for capital projects including exterior repairs, fire alarm and electrical system repairs, plumbing and HVAC.
- The roof at Guiteras is also on the plan for replacing.

- The largest capital project expenditure will be the heating plant repairs at the Mount Hope High School.

Stormwater

Existing Condition

Stormwater management is typically funded by general fund revenues and for many municipalities, constrained budgets have translated into insufficient funds to properly maintain and operate drainage systems. At present, Bristol's stormwater management program is funded primarily by Department of Public Works funding designated from Bristol's General Fund and money from town bond proceeds. The Town has also been successful in receiving State and Federal grants for improvements to the drainage including projects in the Tanyard Brook and Silver Creek Watersheds. Working with the Town's Drainage Committee, formed in response to town-wide drainage and flooding problems, the Town continues to spend down the $3 million bond approved by Bristol voters in 2006 to pay for drainage improvement projects. With these bond funds and grants, Bristol has been able to make headway in addressing flooding and other drainage problems in the Tanyard Brook and Silver Creek areas of town.





Tanyard Brook repairs

In recent years, the Town has also received limited federal grant funds (Section 319) and a State Revolving Fund low interest loan to finance the design and construction of stormwater treatment structures to mitigate polluted runoff from town roads and the beach parking lot which discharge onto the town beach and contribute to beach closures. Using sewer enterprise funds, the Town's drainage system has been mapped as part of efforts to address the significant problems posed by inflow and infiltration into the sewer system.



Stormwater BMP Sand Filter installed

The Town has also working to reduce impervious surfaces wherever feasible. The Town is in the process of completing a stormwater improvement project at the Guiteras School were pavement is being reduced and bioretention areas are being installed to improve water quality. This project was funded by a 319 Grant from the RIDEM that the Town provided local matching funds to. The Town also completed drainage improvements at the Town Beach which involved removal of excess asphalt, installation of a wet vegetated treatment system, and elimination of a point source discharge.

Bioretention areas at Guiteras School





Bioretention areas at Guiteras School

Future Needs

As evidenced by the examples above, Bristol has been able to successfully leverage town general revenue funds with federal stimulus dollars, road and drainage bonds, grants, and private funds to move forward a number of high priority capital improvement projects. However, there is much more to be done including drainage improvements needed to address flooding and water quality concerns (including the separate sewer overflow problem) and to proactively repair or replace aging and deteriorating drainage structures. A more stable revenue stream is needed for the Town to manage operation and maintenance of Bristol's drainage system in a planned and systematic manner and to fully comply with its Phase II Stormwater Permit requirements. The Town is exploring the feasibility of a Stormwater Management District with the help of a grant from the RI DEM.

Solid Waste

Existing Condition

While Bristol produces the 4th highest level of trash in Rhode Island, the Town's recycling rate is the 3rd lowest in Rhode Island (17.4 percent). The Town is exploring a variety of ways to increase the

percentage to achieve, at a minimum, the 35% recycling and 50% solid waste diversion goals.

Future Needs

While the level of service is good for solid waste collection, the Town continues to struggle to reduce the volume of trash and increase the recycling rates. The Town is currently exploring opportunities and programs to improve the Town-wide recycling with a Recycling Committee. The Town is currently studying options including an ordinance which will require that residents recycle in order to have their trash picked up "no bin no barrel".



Commercial Recycling Bins

Department of Public Works

Existing Condition

The Department of Public Works (DPW) is responsible for the maintenance and operations of the Town roadways, drainage structures, and several municipal buildings and properties. DPW also operates the Town's municipal waste and recycling collection programs. The department employs a staff of 33 and operates two primary facilities. The first being the DPW office and operations center at Mt. Hope Avenue. This facility consists of storage and maintenance facilities for vehicles and equipment as well as office space for administrative functions. The second facility is the transfer station located at Minturn Farm Road on the site of the former Bristol

landfill. The transfer station accepts curbside and drop off refuse and recycling materials from local residents for off-site disposal. The DPW facility at Mt. Hope Avenue is located in the south center area of Town adjacent to the Tanyard Brook and State Street Reservoir.

Future Needs

The DPW staff and equipment are utilized for curb side pickup of residential refuse and recycling which places a large demand on the department. Future needs include an assessment of the feasibility of privatization of the residential curbside pickup program. The DPW is also responsible for roadway and drainage system maintenance and repair. The Town is currently studying the creation of a Stormwater Management and Enterprise Fund to provide dedicated consistent funding for stormwater projects and to address compliance with the Town's MS4 permit. The overall level of service provided to the community is good and expected to be maintained with a slow population growth. The equipment and staffing needs should continue to be evaluated to ensure that there is sufficient capacity to meet community needs and future regulatory requirements. In addition, a portion of the Mt. Hope Avenue property is located in a flood zone, has poor drainage, and is constrained by the reservoir which means that within the 20-year planning horizon, the Town should consider undertaking a study to determine the feasibility of and the potential sites for re-locating this facility into a more centralized area of Town and out of the flood plain.

Energy Efficiency

With an ARRA funding energy grant, the Town completed the following renovations to save energy in Town-owned buildings: New boilers in the Senior Center, Department of Public Works, Downtown Naval Reserve Armory and Police Station; new windows in the Burnside Building, Town Hall, and Fire Station at Church Street, and new light bulbs in the Water Pollution Control Facility. It is expected that the Town will see significant savings as result of this investment.

The Town has made repeated attempts to site a solar farm on the Town landfill. This project involved a third party contractor building the solar, selling the energy to the National Grid and paying the Town

rent. However, these attempts did not advance since the Town's contractor did not win at the National Grid auction.

Other Public and Private Institutions

Roger Williams University expanded their campus since the 2009 Plan Update with the construction of a new sports complex, a new dormitory, and a new sailing center (in progress). In conjunction with the new residential dormitory, RWU installed a new water tower which improves water services on the campus and in the neighborhood. This was a significant benefit to the Town and the residents where water service had been very poor previously and impacted public safety.

The State Veterans Home on Metacom Avenue is in the planning stages for the completion of a substantial construction project to build a new facility with a total of 192 beds. This project is being funded by the voter approved bond with a Veterans Administration federal reimbursement. The RI Department of Administration has begun the planning and design of the project which is expected to begin construction in the Spring of 2015 and open in 2017.

Statement of Goals and Policies

Continually seek to strengthen the quality of all of the Town's public facilities, including maintaining high quality school facilities, sufficient and high quality public water and sewer systems to meet projected growth, and provide adequate services and facilities for emergency situations. Growth management policies will ensure sustainable services and facilities for present and future generations. The Town should lead by example and design facilities that meet LEED (Leadership in Energy and Efficiency Design) neighborhood design silver certification. The Capital Improvement Plan with a five year horizon and annual capital budget should continue to be updated and implemented.

Based on the critical issues described in the Introduction and the overarching goal stated above, this section presents the goals and policies developed by the Town of Bristol to guide its services and facilities. These goals encompass goals expressed in the other elements of this plan.

Goal 1. **Continually seek to strengthen the quality of the Bristol/Warren School System's facilities in order to smooth the progress of teaching and programming.**

Policies to achieve Goal 1

A. Continually review and seek to improve teaching and program quality through appropriate coordination of all levels of government.

Goal 2. **Provide Bristol with sufficient water to meet projected growth.**

Policies to achieve Goal 2

A. Protect current water sources from further deterioration.

B. Promptly implement the program to upgrade the water delivery system to include new pipes and looping to improve circulation and pressure.

C. Increase efforts to conserve water at all levels of use.

D. Ensure that Bristol maintains into the future its options to use surface reservoirs.

E. The costs and benefits of future supply systems should be evaluated carefully by the town.

F. Implement strong effective measures to improve the management structure and administration of the BCWA.

G. Maintain the current minimum 10,000 square foot lot size in most undeveloped areas that are sewered and 2 acres on Poppasquash, which is lacking public water and sewer. While smaller lots can be developed with suitable wastewater treatment, Poppasquash is vulnerable to well-water drawdown and intrusion of salt or brackish water into the aquifer that feed the wells. A combination of lack of sewer facilities and endangerment of the underground water resources require strong consideration for two-acre zoning. Consider rezoning other vacant areas with no public water and sewer to two-acre minimum lot size. Maintain

conservation development initiatives.

Goal 3. Manage growth so as not to overtax the sewer system

Policies to achieve Goal 3

A. Plan for growth in areas that are, or can be, served by the sewer system.

B. Direct growth away from areas that have no sewers and lie over or near critical environmental resources.

C. Reduce the amount of stormwater infiltration into the sewer system during significant storm events.

D. Revisit the Wastewater Facilities Plan of 2000 and determine effectiveness of the implementation and additional projects that may need to be addressed.

E. Continue to upgrade and improve the current sewer system.

Goal 4. Maintain a favorable tax base.

Policies to achieve Goal 4

A. Encourage balanced growth.

B. Manage growth in concert with the fiscal capacities of the community.

Goal 5. Maintain public infrastructure and services at a high level of excellence.

Policies to achieve Goal 5

A. Measure and monitor the quality of services so as to maintain high quality.

B. Plan for changing service requirements as demographics and economics change.

C. Continue to update and fund the five-year Capital Improvement Plan (CIP) for the Town's infrastructure and ensure adequate funding for Town services.

D. Continue the road and drainage maintenance program. Continue to implement and utilize a GIS database for management of pavement and sidewalk maintenance.

Goal 6. Plan for and provide adequate services and facilities for emergency situations.

Policies to support Goal 6

A. Maintain the high quality of Bristol's emergency services and facilities.

B. Continue to update hazard mitigation plans which will result in fewer storm related impacts and losses to life and property.

C. Maintain emergency sheltering in locations outside of floodplain.

Goal 7. Continually improve the efficiency of government while working to achieve excellent and equitable services.

Policies to support Goal 7

A. Seek ways to cooperate with the private sector to maintain and improve facilities and services.

B. Seek new, more efficient ways of including volunteers in the operation of Town government.

C. Continue and step up efforts to increase public awareness of the role of citizens in keeping Bristol clean.

D. Continue to utilize compost facility and use landscape maintenance specialists to assist the Department of Public Works crews.

Goal 8. Continually improve the Town's recycling program to ensure that Bristol will meet the Rhode Island goal of a 35% recycling rate and a 50% solid waste diversion rate.

Policies to support Goal 8

A. Continue the education and outreach programs to increase awareness of the benefits and the ease of single-stream of recycling and composting programs.

B. Consider programs to further encourage higher recycling and composting rates such as Pay-as-You-Throw and a regulation that requires a resident to put out a recycling bin in order to have his/her trash collected.

C. Monitor the participation rate for multi-family and commercial buildings waste and ensure that the collection rates are incorporated into the state's reported recycling and waste diversion rates.

D. Continue to provide residents with a hazardous waste center for disposing computers and other items that can be recycled at the landfill.

Goal 9. Assess energy usage in municipal buildings and facilities and plan for increasing the energy efficiency and foster the increase in use of renewable energy in both municipal led public buildings and private buildings.

Policies to support Goal 9

A. Continue to examine ways to ease the ability of residents to access renewable energy.

B. Keep current as new and better technologies become available for renewable and energy efficiency.

C. Promote new programs as they become available, partnering with the State Office of Energy Resources to market and advertise the programs to the broadest possible audience.

D. Continue to monitor and update as needed town service equipment, vehicles, and buildings. As upgrades are required, look to energy efficient replacements.

Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 14

Services and Facilities

BARRINGTON

WARREN

Kickemuit River

WARREN

TUPELO STREET

GOODING AVENUE

HOPE STREET

CHESTNUT STREET

METACOM AVENUE

STATE STREET

WOODLAWN AVENUE

Narragansett Bay

Bristol Harbor

Mount Hope Bay

MT HOPE BRIDGE

N

CT

MA

Legend

Bike Path — Major Road — Bristol — Water Body

- Animal Shelter
- Community Center
- Maritime Center and Harbormaster's Office
- Senior Center
- Transfer Station and Compost Facility
- Department of Public Works
- Town Hall
- Water Pollution Control Facility
- Water Tower
- Current School
- Decommissioned School
- University
- Fire Station
- Police
- Library
- Sewer Pump Station
- Roads
- Water Line
- Potential Future Sewer Line
- Sewer Line
- Potential Future Water Line

0 0.25 0.5 1 Miles

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Print Date: 1/26/2016

RIGIS

Prepared by:

MainStreetGIS

MainStreetGIS, LLC

www.mainstreetgis.com

Town of Bristol

Rhode Island

Comprehensive Plan, 2016

MAP 14A

Stormwater Infrastructure

BARRINGTON

WARREN

Kickemuit River

WARREN

TUPELO STREET

GOODING AVENUE

HOPE STREET

CHESTNUT STREET

METACOM AVENUE

STATE STREET

WOODLAWN AVENUE

Narragansett Bay

Bristol Harbor

Mount Hope Bay

MT HOPE BRIDGE

N

CT

MA

0 0.25 0.5 1 Miles

Legend

Bike Path

Major Road

Bristol

Water Body

Location of Drainage / Stormwater Improvement Projects

Drainage Node

Inlet

Outlet

Catch Basin

Drain Manhole

Drain Line

Outfall

Detention Pond

Roads

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10. Implementation Program

Introduction

This chapter is arguably the most important in the Comprehensive Plan. The implementation actions are based on the vision, goals and policies from each chapter. It is important to note that planning is a dynamic process and priorities can shift over time. A consistent review process allows for these issues to be acknowledged while keeping each specific action on the table unless a situation dictates that it is no longer relevant. In addition to implementing the plan, the Town will report on progress and on barriers to implementation on a regular basis.

The Implementation Matrix below summarizes the specific actions for each of the plan's chapters. The timing for implementation of the recommendations are assigned for short terms 1-3 years; medium-term 4-7 years; and long-term 8-10 years, to assist in suggesting a timeframe for each item to be considered. Some actions are ongoing in nature. The responsible agents are also listed in the matrix.

It should be noted that a short-term recommendation does not necessarily imply a higher priority, although it could. It is important to identify recommendations that can be implemented quickly in order to demonstrate progress and momentum in the early years of plan implementation. Conversely, there may be high priority items that will take a number of years to fully implement because of such factors as cost, design, and/or permitting.

Implementation Matrix

Land Use

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
LU-1	Plan services and facilities for a 25-year population projection of 23,771 people				√	Town Council and Community Development Department
LU -2	Examine the feasibility of purchasing the Mt. Hope Planning Area for preservation. Protect the Mount Hope Planning Area with preservation of the maximum amount of open space, cultural, historical and natural resources. Take action to educate the public and to open the greenbelt and pathway system in the Mt Hope Planning Area which has its terminus at RWU and continue efforts to improve the greenbelt and trail linkages to the Planning Area.		√	√		Town Administrator, Town Council, Planning Board, and Community Development Department.
LU -3	Define land use standards specific for Mount Hope Planning Area that take into consideration the surrounding densities and topography and links to other community resources that border the planning area, such as, Roger Williams University and the land adjacent to the town's landfill. Examine a strategy that considers low intensity, low impact and limited mixed-use and active recreational development.			√		Planning Board, Community Development Department, Town Administrator, and Town Council.
LU -4	Commission a study to determine viable uses for the landfill (Minturn Farm area), such study to include benefits and drawbacks of each option, inherent costs and maintenance costs over time, Consider various methods for funding this study, including but not limited to grants and public-private partnership arrangements.	√				Department of Public Works, Community Development Department and Town Council.

[1] S: short-term 1-3 years; M: medium-term 4-7 years; L: long-term 8-10 years; O: ongoing

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
LU -5	Examine developing a set of neighborhood compatibility standards for each planning area in town. These criteria would define land use performance standards that would guide development in established neighborhoods. Criteria would include traffic speed and character, buffer sizes and locations, landscaping criteria, needed public improvements, critical cultural and historic resources, critical environmental resources, existing neighborhood character, and neighborhood planning objectives as defined in the Comprehensive Plan.		√			Community Development Department.
LU -6	Strongly enforce maintaining all industrially and commercially zoned land. Do not allow industrial and commercial zoned parcels to be converted to residential zones.				√	Town Council and Planning Board
LU -7	Follow a policy that maintains and does not significantly expand the town's current supply of commercial land, with the following exceptions: Allow increased commercial activity along the waterfront within the guidelines established by the Waterfront Zoning District, as may be amended (See the Natural, Historical and Cultural Element). Control development through the special use permit process and through town development of parking areas. Any proposal for changing the zoning of land to commercial use should be carefully examined for compliance with the comprehensive plan's objectives.				√	Town Council and Planning Board
LU -8	Protect the following critical areas in Bristol: a) The open fields in the Kickemuit planning area visible from Metacom Avenue. b) The natural and historic areas of the Mt. Hope Planning Area, with emphasis on public access. c) Silver Creek and Tanyard Brook Watersheds. d) Provide public access to and through the North Central wetlands area from the Warren town line to the mouth of Silver	√				Planning Board, Town Council, Community Development Department and Parks and Recreation Department.

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
	Creek adjacent to the Eastbay Bike Path for pedestrians and bicycles or for agricultural uses. e) The Estates planning area and all views and public access to the water along existing public rights of way. f) Protect the historic character of Poppasquash. g) Permanently identify, preserve, protect and maintain all public rights of way and access points. h) Continue to actively support and encourage open space preservation and agriculture.					
LU -9	Expand and implement the Silver Creek Watershed Drainage Study from the headwaters north of Gooding Avenue to the mouth at Bristol Harbor and complete the recommended Phase 2 Tanyard Brook improvements.	√				Town Council, Department of Public Works, and Community Development Department.
LU -10	a) Review and update the future land use plan, the zoning ordinance, and the zoning map for consistency between the zoning and the Comprehensive Plan within 18 months of State Approval. As part of the update, modernize the zoning ordinance language including updated terms and uses. b) Review and update the Subdivision and Development Review Regulations for consistency with the Comprehensive Plan within 2 years of State Approval. c) Develop a community or municipal zone to encompass schools, parks, town common, community center, town beach, all cemeteries and other publicly owned or controlled properties. Consider a cultural arts overlay zone for the decommissioned school buildings on the Town Common to provide flexibility for uses such as visual and performing arts,	√				Community Development Department, Planning Board and Town Council.

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
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	d) Reclassify all open space parcels, both existing and acquired in the future, as Open Space on the towns zoning maps. e) Pursue the adoption of agricultural zoning to help protect the few remaining farms in Town.					
LU -11	Adopt the following land use objectives for each planning area: **<u>The East Shore</u>** a) Northeast: Maintain and protect the residential and commercial character of the area. b) Kickemuit: Protect the area as open space as the first objective of the Town. If this is not feasible, continue to guide any development in a manner that protects significant amounts of the area as farmland open space, such as through conservation development zoning. Place top priority on open space protection and links to Metacom Avenue, with improvements as recommended in the Metacom Corridor Management Plan. c) The Narrows: Protect the residential character of the area. Consider improved north-south movement within the area through links of existing streets. Monitor the Veteran's Home for future proposed changes. d) Hopeworth: Protect the residential character of the area. Examine the potential for the future use of the old Hopeworth landfill, located at the end of Roosevelt Drive, consistent with its open space designation. Consider this area as a potential future public dog park. e) Mt. Hope: Protect the area as open space as the first objective of the town. If this is not feasible, guide any development in a manner	√	√		√	**For all LU-11 land use objectives:** Planning Board, Town Council, and Community Development Department, Parks and Recreation Department, Harbor Commission, Historic District Commission and Harbormaster.

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
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	that protects significant amounts of the area as open space while allowing for a mixture of uses and densities that promote open space protection, such as through conservation development. Explore a variety of means to ensure this protection.	√				
	f) Work with Brown University and the local Native American community to preserve and protect the area encompassing the Haffenreffer Museum, King Philip's Seat and the site of his death for its historic and natural open space value through acquisition, conservation agreement or easement. Further, work with Brown University and the local Native American population to open area of significant historical interest to public access.		√			
	g) Roger Williams University (RWU): Work with the University in its plans for facility expansion on the Ferry Road campus through the Master Plan process of the Educational Institutional Zone and the Metacom Avenue Corridor Management Plan.	√				
	<u>The Central Corridor</u>					
	h) North Central: Maintain the land use pattern presently in place while allowing for only minor infill development. Do not allow the wetlands to be diminished or degraded. If the area is to be developed, guide such development in a manner that protects significant amounts of the area as open space while allowing for a mixture of uses and densities that make the open space protection economically feasible, such as through conservation development. Maintain the residential character of the East side of Hope Street.	√				
	i) Industrial Area: Maximize and protect the					

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
	remaining interior land for industrial use by keeping land in industrial zoning. Encourage mixed commercial and industrial development along eastern and southern borders of the area. Integrate all development consistent with the Metacom Corridor Management Plan for Metacom Avenue between Tupelo and Gooding.	√				
j)	Re-examine the future use of land acquired as open space within the existing industrial area: consider returning all or a substantial part of it natural wetlands state thus protecting the source of Silver Creek watershed. Pursue development of a walking and bike path through the Central Corridor (see LU-8d).		√	√		
k)	High School: Encourage the continuation of the basic land use patterns in place. Protect Silver Creek from pollution and degradation. Protect the residential character of the surrounding neighborhood.				√	
l)	Downtown Core: Maintain and consider appropriate expansion of historic district protection. Seek ways to provide parking without impacting the historic fabric. Encourage the economic reuse of older buildings. Maintain the physical scale of the waterfront in any proposed development plans. Increase public access to the water. Extend the boardwalk and public access to Constitution St. Monitor the Coast Guard Station for future use changes. Maintain a walk able, pedestrian friendly downtown.	√	√			
m)	Develop a strategy to improve the access to and ease of locating parking downtown especially for visitors. Consider establishing a means to facilitate parking for special events, weddings or evening dining as these are important business generators for local establishments. Analysis may include improved signage, off-site parking areas with	√				

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
	trolley service or valet parking permitting.					
	n) To preserve and enhance the pedestrian character of the downtown area and enhance the safety of the area frequented by young students, consider permanently closing Bradford Street to vehicular traffic between Hope Street and Center Street to create a new school campus area between the two elementary schools, Colt and Andrews Schools.		√			
	o) Downtown Neighborhoods: Maintain the mixed use character of the area. Establish use guidelines for reuse of older buildings to protect the character of the neighborhood.	√				
	p) Continue to encourage Bristol Industrial Park development and support its economic growth in a manner consistent with the economic interests of the town and the character of its neighborhood.	√				
	q) The Estates: Work with owners to assist in land use planning so as to maintain the overall landscape character of the area. Monitor Sisters of St. Dorothy and Columban Fathers properties for future use changes and seek development rights to those and other private parcels.	√				
	<u>The West Shore</u>					
	r) Northwest: Maintain and protect the residential character of the neighborhood and encourage conservation of the remaining open land.				√	
	s) Highlands: Protect the residential character of the neighborhood. Prohibit commercial development along this corridor except in areas already in commercial use. Examine the need for and feasibility of minor street connections to facilitate neighborhood movement by residents and service vehicles. This neighborhood has many historic		√		√	

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
	structures and a settlement pattern that would make it eligible for National Register of Historic Places designation. Work with the neighborhood association on the nomination to the National Register.					
	t) State Park: Protect the park use. Continue to maintain and improve the Sports Complex and Town Beach. Continue expansion of the Town's recreation use with the opening of and continued development of the Bristol Recreation Center "Quinta Gamelin Community Center"				√	
	u) Poppasquash: Discourage high-density development that would require a small wastewater treatment facility, town sewers or would impact existing wells.				√	
	The Waterfront					
	v) State Street Dock: Recent major renovations known as phase one have been completed at this location. Phase two which include lighting, signage and stripping are scheduled to begin once the funding is secured. Continue a policy of equitable use by fishermen and residents. Maintain the existing sticker controlled parking regulations.	√				
	w) Phase three of the State Street Dock renovation is a proposed town owned docking facility within the town's riparian rights at the west end of State Street along the northern wall which abuts the Thames Street Landing property. A portion of this dockage should be for transient tie up as well as seasonal rentals. A critical component of phase three completion requires dredging of the boat ramp area at the west end of State Street. The town should encourage and financially support the completion of this project known as phase			√		

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
	three of the State Street Dock Plan.					
	x) Maintain the west end of State Street Dock as deepwater access for fishermen and commercial craft. Do not permit permanent leasing of this space as dockage. Do not permit storage of fishing gear, traps, equipment or other materials that block access, views or use by recreational fishermen.				√	
	y) Implement the Maritime Center Development and improvements to the adjacent town owned waterfront structures and parking facilities.	√				
	z) Encourage the expansion of marina facilities from the south side of the State St. Dock to Constitution St. including the area west of the proposed development at Robin Rug facility. Consider including additional transient dock and dingy tie-up space within the town's waterfront property with access to the public boardwalk. Consider incorporating a fueling dock within the town's marine facilities from the south side of the State St. Dock to Constitution St. Preserve the working waterfront character by encouraging compatible maritime businesses.		√			
	aa) Pursue the creation of a transient docking facility within the town's riparian rights area at the west end of Constitution Street adjacent to the Elk's Club seawall.		√			
	bb) Encourage introduction of a Newport to Bristol Ferry and supporting reintroduction of summer ferry service to Hog Island. Use public resources only if financial feasibility can be demonstrated.	√				

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
LU -12	a) Continue to work with the State Scenic Roadways Board on the implementation of the Stewardship Plan for Route 114 Scenic Roadway of June 2005. b) Expand the plan to include the portion of Metacom Ave. (Rte. 136) between Mt Hope Ave. and the junction of Routes 114 and 136. Coordinate on the enforcement and implementation of the plan, amending this plan as necessary.		√		√	Community Development Department, Planning Board, and Town Council.
LU -13	Pursue a variety of public and private sources for funding the purchase of development rights, agricultural land and open spaces, including but not limited to targeted impact fees, bond issues, a revitalized land trust and state transfer tax income.				√	Community Development Department, Planning Board, Town Administrator, Town Treasurer, Town Tax Assessor, and Town Council.
LU -14	The town should continue to implement, update and maintain the current Geographic Information System (GIS) program. The development of a regional GIS with other Towns should be explored.	√			√	Community Development Department, Planning Board, and Town Council.
LU -15	The Town adopted the recommended design guidelines and zoning from the Metacom Avenue Corridor Management Plan in 2010 but the plan's maps and illustrations should still be used as guidance for layout of land use, design of buildings, and transportation activities implemented within its area of application.				√	Community Development Department, Planning Board, and Town Council.
LU -16	Continue to implement the recommended actions from the Marine Trades Route Study.		√			Community Development Department, Planning Board, Town Council,

#	ACTION	TIME FRAME[1]				RESPONSIBLE AGENT
		S	M	L	O	
LU -17	Protect the Town Common as open public space. Preserve the integrity of the structures on the Town Common and limit redevelopment of the Byfield and Walley School buildings to protect its historic character. Residential use shall not be permitted on the Town Common. (See LU-10)	√				Community Development Department, Planning Board, and Town Council.
LU -18	Consider the installation of a wave attenuator structure as part of the proposed Church Street Dock Extension to reduce the impact of major storms and their associated wave action on the waterfront district. The structure should be located where it will create a protected docking, marina and anchorage area without degrading the water quality for shell fishing and other activities.	√				Community Development Department, Planning Board, Town Council, and Harbor Commission.
LU -19	Develop a Shoreline Management Plan for Bristol Coastal Areas . Define land use standards specific to those areas of the town especially low lying coastal areas and within defined watersheds that will be subject to increased periodic flooding or gradual permanent inundation due to generally increasing sea levels. Develop a strategy for addressing these changes in concert with the appropriate federal and state authorities through a well thought out series of actions that may include protection, reconfiguration, relocation, acquisition and passive surrender.		√	√		Community Development Department, Planning Board, and Town Council.

Housing

#	ACTION	TIME FRAME[2]				RESPONSIBLE AGENT
		S	M	L	O	
H-1	Create standards for multi-family housing units that are created for affordable housing though the special use permit process.	√				Community Development Department and Planning Board
H-2	Adopt a public advertising campaign to educate residents on the need for the creation of affordable housing units.	√				Community Development Department
H-3	Build an affordable housing trust fund so that foreclosed units or units for sale may be purchased to create affordable housing rather than building new or to help with down payment assistance for first time homebuyers. This fund could also receive revenue from the inclusionary zoning ordinance " fee in lieu of" provision.	√	√			Finance Director, Town Administrator, Town Council, Department of Community Development
H-4	Work with RWU to encourage more on-campus student housing. As off-campus housing becomes surplus, the Town should consider creating opportunities for affordable housing. The Town and RWU should create an agreement offering the Town the right of first refusal for these units (Almeida Apartments)	√	√			Town Council, Planning Board, Department of Community Development
H-5	Re-institute the Affordable Housing Committee to help identify affordable housing opportunities, advocate for / educate about affordable housing needs, and explore more creative ways to achieve affordable housing goals. Include representative from the local housing organizations on the Committee.	√				Town Council
H-6	Develop a Section 8 Home ownership program in conjunction with a Family Self Sufficiency Program with the Bristol Housing Authority.	√				Department of Community Development

[2] S: short-term 1-3 years; M: medium-term 4-7 years; L: long-term 8-10 years; O: ongoing

#	ACTION	TIME FRAME[2]				RESPONSIBLE AGENT
		S	M	L	O	
H-7	Develop a program with the Bristol Housing Authority to recruit more landlords to participate in the Section 8 Housing Choice Voucher program. There are currently more recipients then apartments available.	√				Department of Community Development
H-8	Develop program and promote the East Bay Community Development Corporation, as the only East Bay Agency recognized as a monitoring agent for the privately owned affordable housing units, to ensure that housing units with long term deed restrictions are not lost over time.	√				Department of Community Development
H-9	Partner with the East Bay Chamber of Commerce in promoting and raising awareness to the economic benefits of affordable housing. The lack of workforce housing is a critical issue in the business community.	√				Economic Development Commission, Department of Community Development
H-10	Utilize the services of the Roger Williams University Community Partnerships Center to develop creative ways to provide affordable housing such as: a) exploring new design and material advances in housing construction, b) research innovate funding mechanisms and land use techniques for providing affordable housing and c) study the amount of substandard housing and prioritizing areas of the low/moderate census tracts for rehabilitation efforts.	√				Department of Community Development, Planning Board
H-11	Continue and expand the Towns CDBG home repair and home maintenance grant and loan programs.	√			√	Department of Community Development
H-12	Consider the best use or reuse of town-owned property to include housing and/or a portion from the sale to be applied to a housing trust or first time homebuyer program. The exception to this would be the former school buildings on the Town Common which cannot be used for housing and cannot be sold.	√				Department of Community Development, Town Administrator, Town Council

#	ACTION	TIME FRAME[2]				RESPONSIBLE AGENT
		S	M	L	O	
H-13	Work with State Representatives and State Senators to broaden the definition of "affordable housing" beyond government subsidized housing and include modestly priced and locally affordable units within the community.	√			√	Town Council
H-14	Survey and identify individual properties and neighborhoods, like the Highlands, that should have value for historic preservation. The survey is to be town wide and focused on architectural or historic significance. Work with those interested property owners to have the properties nominated for National Register of Historic Places designation.	√	√			Historic District Commission, Department of Community Development
H-15	Explore and Consider adopting form based vs. use based zoning regulations to maintain characteristics of existing neighborhoods.	√				Department of Community Development, Planning Board, Town Council
H-16	Continue to update existing streets that lack sidewalks and determine feasibility of providing such and requiring new sidewalks with specific reference to Ferry Road and Metacom Avenue.	√			√	Department of Public Works, Department of Community Development
H-17	Cul-de-sacs should be discouraged where practicable and local transportation connections to commercial uses along Metacom and Hope Street are encouraged.	√			√	Department of Community Development and Planning Board
H-18	Adopt a night sky ordinance to address the impacts of exterior lighting on neighborhood residential properties.	√				Department of Community Development, Town Council

#	ACTION	TIME FRAME[2]				RESPONSIBLE AGENT
		S	M	L	O	
H-19	Continue to participate in the Community Rating System of the National Flood Insurance Program and amend as applicable to raise the Town's credit for increased discounts on Flood Insurance Policies. Work with the State of Rhode Island Emergency Management Agency (RIEMA) and the State Building Official's Office to change the State Building Code to allow more credits to the Town under the CRS Program.	√				Department of Community Development, Town Council
H-20	To provide incentive for property owners to create a deed restricted affordable rental unit, the Town will continue to limit the property taxes on the deed restricted unit to 8% of the gross income received from the unit.	√				Tax Assessor, Finance Director
H-21	Continue to identify locations for Affordable Housing Development. Bristol does not want to create large affordable housing developments for specific income groups. The Town prefers smaller in-fill developments scattered throughout the Town, so that affordable housing is not clustered in one neighborhood. Affordable housing should be integrated with market rate housing. Affordable housing should be designed so as to blend with surrounding market-rate housing in terms of architectural style. In addition to in-fill development and potential rehabilitations of units in the low-mod census tract, the Town has identified the sites listed on the Affordable Housing Location Summary Chart as appropriate locations for affordable housing development as adaptive reuse, rehabilitation, or new construction.	√				Department of Community Development, Planning Board, Town Council
H-22	Continue to require affordable units as a condition for zoning relief, and changes of zone that include residential uses	√				Planning Board, Town Council

#	ACTION	TIME FRAME[2]				RESPONSIBLE AGENT
		S	M	L	O	
H-23	Create an information packet to provide for-profit developers to help promote the creation of affordable housing.	√				East Bay CDC, Department of Community Development, Planning Board
H-24	Create design standards for in-fill development to help them blend into the character of the existing neighborhood.	√				Department of Community Development, Planning Board
H-25	Help seniors age in place and provide programs that engage them in socialization outside of the home as well.	√				Senior Center, Recreation Department, Town Administrator
H-26	Work with service providers to create affordable child care, based on income, to help people return to the workforce.	√				Human Services Department
H-27	The Town will work with local homeless agencies such as the Rhode Island Veterans Home, East Bay Coalition for the Homeless, RIverwood MHS and/or East Bay Community Action Program to track homeless individuals or families who may have resided within the Town	√				Human Services Department
H-28	The Town should work with the State of Rhode Island to redefine and/or amend the current State Law on affordable housing. For example, the Bristol Housing Authority manages the Section 8 Voucher program; however, the Town cannot count these vouchers toward our 10% goal.	√				Town Council.

Economic Development & Agriculture

#	ACTION	IMPACTED BUSINESS SEGMENT	TIME FRAME[3]				RESPONSIBLE AGENT
			S	M	L	O	
ED-A-1	Hire an Economic Development Officer. Identify an appropriate model based on other successful communities for structuring the EDO position and define success metrics, changing the charter provision related to economic development, if needed.	All	√				Town Administrator, Town Council
ED-A-2	Adopt an annual Economic Development Strategic Planning process that: a) Reports on Economic Development Plan progress and changes in business climate b) Measures performance, achievement, and business demographics & defines success. c) Identifies best practices/ other community's success stories and opportunities for improvements d) Oversees Economic Development strategic plans, including those for "Destination Bristol" and "Manufacturing". e) Enables Town leadership to fulfill its Economic Development role	All	√				Town Council, Town Administrator, Department of Community Development, Economic Development Commission
ED-A-3	Leverage retired business leaders, the business community and Roger Williams University to assist in planning and implementing Economic development strategic planning activities (the EDC) to include: a) Flesh out Strategic Plan outlined in the introduction b) Measure performance c) Identify best practices and opportunities	All	√				Town Council, Town Administrator, Department of Community Development, Economic Development Commission

[3] S: short-term 1-3 years; M: medium-term 4-7 years; L: long-term 8-10 years; O: ongoing

#	ACTION	IMPACTED BUSINESS SEGMENT	TIME FRAME[3]				RESPONSIBLE AGENT
			S	M	L	O	
ED-A-4	Set up an annual training program for Town departments that are on the "front line" for administrative processes. Create a "Getting to Yes" plan and implement a continuous improvement approach for more streamlined permitting and processes without foregoing Bristol's values.	All	√				Town Council, Department of Community Development, Economic Development Commission
ED-A-5	Define and align responsibilities, accountabilities, expectation and culture for economic development success: from Town Council, Town Administrator, Community Development, to supporting town organizations.	All	√				Town Council, Town Administrator

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-B-1	Review zoning regulations and amend as necessary to encourage business growth; to include land use standards, guidelines for industrial areas, reuse or rehabilitation of existing buildings amongst the improvement options. Optimize growth opportunities in business and industrial zones and make provisions for new, more nontraditional, business workspaces such as office spaces in coffee shops. Review and amend, as needed, the signage section of the zoning ordinance including the number, size and location of signs for different business uses in different areas and zoning districts	All	√				Town Council, Planning Board, Department of Community Development
ED-B-2	Continue to encourage creation of flexible industrial space with a streamlined approval process;	All				√	
ED-B-3	Develop performance metrics and fact-based insight into opportunities for Town approval	All	√				Town Administrator,

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
	processes. Together with insight gathered from published best practices and local government success stories, develop approaches to decrease cost, time and complexity of approval processes.						Department of Community Development
ED-B-4	Establish as an objective that approval processes be simplified enough and standardized enough that administrative approvals can be delegated to lowest level.	All	√				Town Administrator, Town Council
ED-B-5	Use existing "incentives" like the Enterprise Zone, Tax Stabilization Ordinance, and Community Development Block Grants to attract and/ or assist small businesses in Bristol	All	√			√	Town Council, Town Administrator, Department of Community Development
ED-B-6	Establish a well-advertised, single point of contact (especially for new and small businesses) for information dealing with town and state permits and approvals.	All	√				Town Council, Town Administrator, Department of Community Development
ED-B-7	Review all town codes, and ordinances, taxes and fees to create an exhaustive list and assess appropriateness. The benefits to the Town must be balanced with the impact on existing and new businesses.	All with inventories	√				Town Administrator, Town council, Finance Department
ED-B-8	Designate the Economic Development Officer as a liaison to state agencies related to regulatory, permitting and fee structure issues.	All	√				Town Administrator

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-C-1	Complete adaptive re-use of the Downtown Naval Reserve Armory into a Maritime Center	Recreational and commercial marine activities, Destination Bristol businesses	√				Department of Community Development, Harbor Department, Harbor Commission, Town Council, Town Administrator
ED-C-2	Incorporate latest Harbor Management Plan into the Comprehensive Plan. Emphasis for success on establishing: a) Welcoming environment/ organization that spreads Bristol Harbor as a destination by word-of-mouth b) Utilities at waterfront c) Accessible moorings, slips, anchorage; easy access and egress from mooring field d) Establishing Bristol harbor launch/ water taxi services e) Easily accessible local marine suppliers, repairs, and lifts.	Recreational and commercial marine activities, Destination Bristol businesses	√				Department of Community Development, Harbor Commission, Harbor Department, Town Council, Planning Board
ED-C-3	Continue to work with the owner of the Robin Rug property to encourage and facilitate the completion of the development proposal that is currently pending for a mixed use development – residential and commercial	All	√			√	Town Administrator, Town Council, Planning Board, Department of Community Development
ED-C-4	Maintain a vibrant downtown by 1) continuing public improvements in the downtown area for pedestrian facilities, such as: sidewalks, walkways, landscaping, street furniture, lighting, and signage; 2) keeping civic and cultural uses in the downtown as an anchor; and, 3) encouraging a mix of residential uses, retail and restaurants.	Destination business, Retirement, Quality of Life	√			√	Town Council, Planning Board, Town Administrator, Department of Community Development

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-C-5	Develop and implement a museum/cultural arts plan to provide for expansion of venues, expansion of an arts community and promotion.	Destination Business	√				Department of Community Development
ED-C-6	Develop a comprehensive tourism marketing/ advertising strategy and implement promotion. This needs to involve state, regional and local advocates with a more active local destination business community. More active participation of destination businesses in regional promotion (updated '09ED#33).	Destination Business	√			√	Department of Community Development, Town Administrator, Town Council
ED-C-7	Rationalize (reduce, consolidate, eliminate overlaps in missions, and etc.) the many business advocacy groups (Bristol Merchants, Explore Bristol, East Bay Chamber, etc.) and make them more effective. Economic Development Officer to be central facilitator/ coordinator/ advocator.	All	√			√	Town Council, Town Administrator
ED-C-8	Working with Explore Bristol, the Newport Visitors and Convention Bureau, and the East Bay Chamber of Commerce, develop a comprehensive destination economic development plan for (strategic plan fortourism) that broadens the destination business season, broadens and diversifies destination offerings and events, and provides infrastructure to create economic opportunity. An integrated, umbrella solution is required to include all aspects of destination business and all constituencies. (Include ED-C-9 and ED-C-10)	Destination Business	√				Town Administrator, Economic Development Commission
ED-C-9	Provide welcoming environment: Welcome Center(s) and kiosks, website & literature, promotion of cross-selling.	Destination Business	√			√	Town Administrator, Economic Development Commission

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-C-10	Working with the local groups such as Explore Bristol, Newport Visitors and Convention Bureau, and the East Bay Chamber of Commerce promote and package large cultural events with other arts & crafts, recreational marine and destination businesses along with better scheduling of activities, coordination of open-shop times, de-conflicting calendars and etc.	Destination Business	√			√	Town Administrator, Economic Development Commission
ED-C-11	Working with the local museum organizations, work to Incorporate Bristol's architecture, historic events such as Revolutionary War, Industrial Revolution, King Phillip's War, local notables and Civil War, the slave trade, cultural diversity, Mt. Hope Farm/ Wampanoag Indians and Haffenreffer Collection into meaningful destination opportunities and exhibits. Explore a new museum in Bristol to display the Haffenreffer collection, and to teach the importance of Bristol in early American history (as home to Wampanoags and their role in settlement of Plymouth, King Phillip's War, slavery and commerce etc.), and relevance today.	Destination Business	√				Town Administrator, Economic Development Commission
ED-C-12	The Town should work with local businesses to maintain an active downtown commercial area, to include strategic recruitment of new businesses).	Destination businesses, Quality of Life Businesses	√				Town Administrator
ED-C-13	Redouble efforts to have "Bristol Buys Bristol." Since Bristol is a significant bedroom community, introduce new residents to Bristol owner and civic organizations.	Destination and Quality of Life Businesses	√				Town Administrator

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-C-14	Continue to monitor the properties in the Franklin Street Corridor Redevelopment Plan, including the Bristol Industrial Park, to continue implementation of the plan and move forward with redevelopment	All	√			√	Town Council, Redevelopment Agency, Department of Community Development
ED-C-15	Explore marketing and branding Bristol as a maritime/ composites/ materials Centers of excellence.	External-facing business	√				Town Council, Town Administrator
ED-C-16	Leverage Roger Williams University as a partner to promote economic development The Economic Development Officer should continue to work closely with the Business Engagement Center and the Community Partnership Program.	All	√			√	Town Administrator, Town Council, Department of Community Development
ED-C-17	Promote Rogers Free Library as a central source of information on history and economic development). The library should augment the visitor's center resources.	All	√				Town Council, Rogers Free Library
ED-C-18	The Economic Development Officer, in collaboration with civic organizations, should maintain and publicize a registry of available opportunities. Bristol is fortunate to have a strong spirit of volunteerism that should be nurtured and promoted.	All	√			√	Town Council
ED-C-19	Create an advertising/marketing campaign to promote Bristol for business and help to create a positive outlook. Establish a program with regular workshops that include civic leaders for networking and to keep them engaged and to help build confidence in the business environment.	All	√				Town Council, Town Administrator, Economic Developme Commission

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-C-20	Create and Maintain a Town Web site that provides relevant and current information and resources.	Downtown business, Destination business, Marine Center	√			√	Town Administrator
ED-C-21	Develop a plan for expanded retirement living in and near the downtown which will provide an additional business base for "destination Bristol" businesses and additional tax base.	Downtown business, Destination business, Marine Center	√			√	Town Council, Planning Board, Department of Community Development

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-D-1	Explore and facilitate the implementation of technology collaboration centers/ cooperatives with simple computing, CAD software, telecommunications, and manufacturing equipment such as milling machine, laser cutter, and 3-D printer. These have proven important for embryonic and small businesses around the world. Often these are educational institutions/business partnerships with town leadership. They are equally applicable for individual, community, arts, and educational purposes. MIT's fab center concept is a global example.	All		√	√		Town Council, Town Administrator, Economic Development Commission
ED-D-2	Explore and facilitate the creation of professional service collaboration centers; again as business/ educational partnership with town leadership. As telecommuters, home-based professionals and virtual business teams become more prevalent there will become greater demand for local	Tele-commuters, independent contractors	√				Town Council, Town Administrator, Economic Development Commission

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
	domiciles, telecommunications, and etc. (Centers may also be applicable for individuals, community, arts and educational purposes).						
ED-D-3	Lead effort to establish university and business partnerships to collaborate to foster embryonic technical and service businesses. These may also include partnerships with institutions or individual benefactors. Roger Williams University and, other local universities, and local technical training institutes to include the Bristol International Yacht Restoration School, a model and resource for workforce development opportunities. In all cases Town leadership and sponsorship is required. As a source for long-term growth and opportunity for the next generation of Bristolians, the Town needs to exert its leadership.	Embryonic		√			Town Council, Economic Development Commission
ED-D-4	Continue to provide small business advisory services/ collaborative with Roger Williams University and the Business Engagement Center for mutual benefit of students, interns, and small businesses.	All	√			√	Town Administrator
ED-D-5	Continue to work for improved parking conditions in downtown area to include improved signage and lighting, as well as sidewalks and other pedestrian amenities.	Downtown business, Destination business, Marine Center	√				Town Administrator, Town Council
ED-D-6	Install the linkages along the Downtown Harbor Boardwalk which are on the Town owned property. Implement the recommendations from the Roger Williams University Community Partnerships Center Master Plan for the area along the boardwalk such as interpretive signage,	All	√	√			Department of Community Development, Town Administrator, Town Council

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
	benches, and low-level lighting.						
ED-D-7	Explore opportunity for downtown/destination jitney; collaboration with Roger Williams University transportation; extend sidewalk/bikepath to Blithewold, Mount Hope Farm, and Roger Williams University.	Downtown business, Destination business, Marine Center, RWU		√	√		Town Council, Town Administrator
ED-D-8	Complete the boat ramp improvement project at Independence Park and continue implementation of the Marine Trades Route Plan.	Maritime business, commercial fishing and recreational marine		√			Harbor Department, Harbor Commission, Recreation Department
ED-D-9	Create a small yard-space near the fishing piers to store gear in-transition.	Commercial Fishing	√				Harbor Department, Harbor Commission
ED-D-10	Implement the Town's recently created Wayfinding Signage plan for consistently designed signage that will be placed at key locations to clearly direct visitors to cultural and recreational areas and downtown shopping and parking.	Downtown business, Destination business, Marine Center	√			√	Department of Community Development, Department of Public Works
ED-D-11	Facilitate access and use of an advanced fiber optic network which is critical to attract new businesses and help existing businesses upgrade their technical capacity for digital modeling, telecommunications, etc. (Investigate connection to Beacon 2.0 regional fiber network of OOSEAH, which services municipalities, educational institutions and community organizations, and which runs down Hope Street.	All		√	√		Town Council

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-E-1	Develop comprehensive town approach for (a) preparing Bristol's high school and vocational education graduates for the workforce and (b) for continuing education including the Marine Trades and Composites.	All		√			Town Council, School Department
ED-E-2	Establish a sustainable business/ education partnership starting with business/ private training institutes/ education roundtable to define ongoing collaboration at the primary and secondary school level. Key objective for the roundtable is to find ways to incorporate "business readiness" into the "life readiness" mission for the local education system.	All		√			Town Administrator, Town Council, Economic Development Commission
ED-E-3	Expand local internship programs for high-school students	All	√				Town Council, School Department
ED-E-4	Expand and deepen student mentorships, business skills workshops, business mentoring, and tutorial programs with businesses, community, and RWU.	All		√			Town Council, School Department
ED-E-5	Provide trades classes/ training as an after school high-school activity. Provide business soft-skills seminars as part of the secondary school curricula and tie into the Center for Excellence and the programs at the Quinta Gamelin Community Center.	All	√				Recreation Department, School Department

#	ACTION	IMPACTED BUSINESS SECMENT	TIME FRAME				RESPONSIBLE AGENT
			S	M	L	O	
ED-F-1	Implement zoning and tax provisions that promote existing and future farmlands.	Agriculture	√				Town Council, Planning Board, Department of Community Development, Finance Department
ED-F-2	The town, in collaboration with Roger Williams Marine Sciences should promote the future development of aquaculture on its shores. While perhaps not in control of this development it can be an influencer and protector of local fishing and shore line interests.	Fishing and boating	√				Town Council
ED-F-3	Support local commercial fishing boat-to-table and farm-to-table farmers' markets.	Fishing and Agriculture	√				Recreation Department, Department of Community Development, Town Administrator, Town Council
ED-F-4	Explore locating a local farmers/fisherman's market in the downtown area either at Rockwell Park/Downtown Naval Reserve Armory (Maritime Center) or at Independence Park.	All	√				Recreation Department, Harbor Department

Natural, Historical & Cultural Resources

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-1	Review and update the Bristol Harbor Management plan and ordinance annually.	√			√	Harbor Commission, Harbor Master, Community Development Department, Bristol Town Council
NHCR-2	In coordination with the State Hazard Mitigation Officer, create a standing committee of appropriate technical and professional experience to compile and maintain a hazard mitigation list as described in Integrating Historic Property and Cultural Resource Considerations Into Hazard Mitigation Planning: State and Local Mitigation Planning How-to Guide FEMA 386-6 May 2005. Work in conjunction with the State Historic Preservation Officer.	√	√			Town Council, Town Administrator, Historic District Commission
NHCR-3	The Historic District Commission's principal emphasis is to promote, assist, and facilitate the preservation of Bristol's historic and cultural assets. To preserve and promote continued restoration of the historic architecture of Bristol, members of the Historic District Commission should be required to participate in at least one local, regional, state or national course, symposium or meeting regarding historic preservation, per year to maintain their warrants. The recommendations of the Bristol Historic District Advisory Committee should be incorporated into the rules of the Historic District Commission and the rules of the Historic District Commission should be reviewed and amended as needed. In recognition of the need to create incentives to owners of property under the protection of the Historic District ordinances, the Town Council shall pursue efforts to establish a $500.00 tax rebate to said property owners as	√			√	Town Council, Bristol Historic District Commission

[4] S: short-term 1-3 years; M: medium-term 4-7 years; L: long-term 8-10 years; O: ongoing

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
	incentive to protect these treasures.					
NHCR-4	The Historic District Commission should investigate and recommend renewable energy solutions for properties under their protection; to promote sustainability of these significant structures.	√				Historic District Commission, Town Council,
NHCR-5	Minimize the amount of new impervious paving and encourage the use of pervious surfaces, and retrofit existing parking areas, where and when feasible and wherever environmentally sound to reduce the rate and volume of stormwater runoff. Study and consider adoption of stormwater management district to fund water quality improvement projects.	√			√	Planning Board, Department of Public Works, Community Development Department.
NHCR-6	In new developments require the use of native plantings, rain gardens (bio-swales), and drought tolerant plantings that don't require heavy watering or fertilizing and discourage the use of invasive species. Identify appropriate tree, shrub and plant species to recommend to developers and develop and provide list of undesirable/non-native/invasive species that will be discouraged from use. Ref: RI Natural History Survey and RI Wild Plant – Plant Inventories)	√				Planning Board, Conservation Commission (Community Development Department.
NHCR-7	Use federal, state and local programs to purchase properties that are subject to frequent flood or storm damage.				√	Town Administrator, Community Development Department, Town Council
NHCR-8	Continue the work of the Conservation Commission and Tree Commission to manage the Town's tree management program, which includes the inventory of public trees, and the annual planting of 30 to 40 public trees with the goal of maintaining or increasing Bristol's tree cover.				√	Town Council, Community Development Department and Bristol Conservation Commission

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-9	Continue the work to inventory the public street trees in Bristol and map the data using GIS.		√			Tree Commission and Community Development Department.
NHCR-10	Pursue the following action for the future of the Mt. Hope Planning Area and its coastline: In tandem with the above efforts, follow a policy that will encourage maximum open space protection, maximum cultural resource protection, adequate buffers with surrounding residential and estate uses, protection of the wetlands and the bay. Recognize and work with the variety of different stakeholders within the Mt. Hope Planning Area. Their needs and interests may differ significantly from one another. Provide a two hundred (200) foot buffer easement along the shoreline for public access including lateral access to the shore. Maintain shoreline access within the Roger Williams University campus. Nominate the Mt. Hope Planning area as a National Register Historic Site. Nominate the Waypoyset Preserve property as a National Register Historic Site.	√			√	Town Council, Planning Board, Town Administrator, Community Development Department, Bristol Historic District Commission
NHCR-11	Pursue the following actions for the future of the area at and near the mouth of Silver Creek: Restore the unobstructed flow of water from Silver Creek into Bristol harbor, which is very important for the proper flushing of the creek. Preserve Silver Creek, which flows into the northern portion of Bristol harbor, along with abutting areas as a "welcome" to the downtown and maintain excellent views of the harbor. The existing commercial structures immediately north of Silver Creek and between Hope Street and the scenic harbor partially obstruct the views of the	√			√	Town Council, Planning Board, Town Administrator, Community Development Department

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
	harbor and diminish the sense of welcome as one approaches the downtown from the north. Although current zoning allows for expansion of these structures, consider amendments that would discourage expansion of heights and build-out to the lot lines consider outright purchase, acquiring development rights, view shed easements from private property owners in order to preserve existing views. Study the feasibility of some form of "transfer of development rights" (TDR) legislation in the Zoning Ordinance as a potential way to address this issue. Concurrently, the area from Independence Park north to the northeast portion of the harbor should be zoned uniformly as open space. The commercial properties could continue to exist, but as non-conforming uses, which would prevent further expansion. Continue planning for the expansion of the park along the mouth of Silver Creek, including the area from Independence Park on the south to the open sites north of Silver Creek which serves as the southern terminus of the bike path. Consider acquisition of land immediately north of Silver Creek and west of Hope Street and incorporate the property into the park area in order to protect it from possible use and visual degradation and to enhance views and the sense of arrival at the historic downtown of Bristol. Restore the natural salt marshes near the mouth of Silver Creek, where the flow of water between Silver Creek and the harbor should be improved and become essentially unobstructed. Remove siltation south of Chestnut Street, as part of a wetlands restoration along Silver Creek. To mitigate adverse impacts to Silver Creek and to Bristol Harbor, Low Impact Development (LID) techniques should continue to be required throughout the Silver Creek watershed area.					

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-12	Pursue the following actions for the future of the area at and near the mouth of Tanyard Brook. Correct periodic flooding in the area near the mouth of Tanyard Brook which may cause property damage and contributes to pollution in Bristol's coastal waters. Correct siltation and maintenance problems in the reservoir on State Street. Expand the capacity of the State Street Reservoir, in order to mitigate downstream flooding, and the facility should regularly be used as part of a storm water runoff detention system. Continue to require mandatory Low Impact Development (LID) techniques throughout the Tanyard Brook watershed area, to mitigate adverse impacts to Tanyard Brook and to Walker's Cove.	√	√		√	Town Council, Planning Board, Town Administrator, Community Development Department, Department of Public Works
NHCR-13	Pursue the following actions to protect existing wetlands and to alleviate flooding in watershed areas. Urge RI state agencies to provide consistent protection of wetland areas in Bristol. Map all significant wetlands that should be protected from new or additional development, regardless of zone or ownership concerns. Protect mapped wetland areas through zoning and other local regulatory means so that new or expanded construction in such areas is not permitted.		√			Town Council, Planning Board, Town Administrator, Community Development Department.
NHCR-14	Complete the large scale plant materials inventory along the Hope Street Corridor/Route 114/Scenic Highway.		√			Tree Commission, Community Development Department.
NHCR-15	Conduct a feasibility study to consider Minturn Farm for sustainable energy initiatives. Consider zoning amendments to encourage solar farm.	√				Planning Board, Community Development Department,

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
						Town Council
NHCR-16	Explore measures to protect stone walls that help to define the Town's character.	√				Community Development Department, Planning Board, , Town Council, Historic District Commission
NHCR-17	Future land acquisition for open space and recreation should be done in accordance with the Open Space Plan, June 2008 as amended. Properties in the Special Flood Hazard and Repetitive Flood Loss Areas should be acquired and vacant open space within the coastal flood zones should be preserved.				√	Town Administrator, Community Development Department, Planning Board, Conservation Commission, and Open Space Committee.
NHCR-18	Identify the funding potential and necessary application steps for purchase by the state, the Town of Bristol, the Bristol Land Trust and any other land conservation group of development and/or conservation rights to Bristol's remaining farms and other significant historical and cultural open space resources.	√			√	Community Development Department, Planning Board, Bristol Land Trust
NHCR-19	Continue to Implement recommendations by the Hydraulic Study commissioned by the Bristol County Water Authority.		√			Town Council
NHCR-20	Study and consider adoption of stormwater management district to fund water quality improvement projects.	√				Planning Board, Community Development Department

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-21	Establish priorities and continue to acquire land, rights-of-way, or easements along tributaries, estuaries, coastlines, and streams (for example Silver Creek) to buffer these areas from development and provide limited public access. Improve public boat launch sites along Narragansett Bay, Mount Hope Bay and Bristol Harbor.	√				Planning Board, Community Development Department, Town Administrator, Conservation Commission, Town Council, Harbor Commission.
NHCR-22	Pursue the following actions for the historic downtown of Bristol and for other areas of special natural, historical, or cultural significance. Consider tax incentives for historic district properties. Enlist horticulturalist from the state, Blithewold and other sources to establish metrics for water runoff control by native plantings, rain gardens and other natural remediation methods. Utilize vegetation to control water runoff and infiltration as recommended in the Rhode Island Stormwater Design and Installation Standards Manual revised December 2010 Adaptive reuse of underutilized historically significant buildings and other buildings of architectural and economic importance must be developed in compliance with historical preservation and architectural design goals. Consider uses/development in light of environmental risks. Update the downtown urban design plan that was done for the Town by the Sasaki Group in 1981 and provide for continuing urban design review services on an as-needed basis. Urban design is an effective tool for demonstrating physical feasibility and long-term community goals. The design should reflect the goals and policies of this plan. The downtown area included by the plan should be bounded roughly by Silver Creek and environs on the north,	√			√	Town Council, Planning Board, Town Administrator, Community Development Department, Historic District Commission.

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
	Wood Street and environs on the east, Union Street on the South, and the harbor on the west. Within the overall area of the urban design, certain locations should receive special focus, e.g. Robin Rug, the downtown waterfront along Thames Street, the block bounded by Bradford, Hope, State, and Thames streets, and the Bristol Industrial Park and along Hope Street to the north.					
NHCR-23	Define criteria for establishing and evaluating Areas of Critical Cultural Significance. Based on the cultural resources identified by this plan, criteria could include: historic or current farm use, historic structures or sites, historic districts, clusters of buildings and sites listed on or qualified to be listed in the National and State Registers of Historic Places, institutions representing or promoting historical or cultural sites or activities, areas where social interaction has traditionally occurred (such as houses of worship, civic organizations, the Town Common, RWU, etc.), critical landscapes identified by the RIDEM and RIHPHC landscape survey, and important large scale plantings.		√			Planning Board, Historic District Commission, Conservation Commission, Community Development Department
NHCR-24	Work with the Roger Williams University School of Architecture, complete a neighborhood planning analysis in order to better identify natural and cultural elements in the various parts of Bristol that should be protected. Encourage mixed use of historic properties where such use promotes preservation of historic structures and enables economic feasibility of historic preservation projects.		√			Town Council, Community Development Department, and Roger Williams University.
NHCR-25	New construction on the Town Common should be strongly discouraged, unless such uses are related directly to existing uses. New uses, such as housing, should not be permitted on the Common. Adopt a municipal or public zone for Town-owned open spaces. For the decommissioned school buildings on the Town Common, consider creating a creative overlay zone to facilitate the reuse for arts uses.	√			√	Planning Board, Town Council, Community Development Department, and Town Administrator.

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-26	Expand the local historic district in phases over the next five to ten years as follows: Phase 1: By the end of 2018 extend the district north and south along both sides of Hope Street (Route 114) to the town lines. Phase 2: By the end of 2023 encompass the National District.		√	√		Historic District Commission, Town Council, Community Development Department.
NHCR-27	Monitor, update and organize information about the Town's historic and cultural resources, including its existing National Register Districts.	√			√	Planning Board, Town Council, Community Development Department, Historic District Commission, Conservation Commission.
NHCR-28	Carefully consider the historic and built environment impact of allowing the demolition of buildings for open air parking. Develop a comprehensive parking strategy to provide adequate parking in Downtown in ways that will not disturb the fabric of the town. Encourage pedestrian connections.		√			Town Administrator, Town Council, Community Development Department, Planning Board, Historic District Commission.
NHCR-29	Examine a special design review process for Areas of Critical Environmental and Cultural Significance. Continue the coordinated approach with the Conservation Commission, Historic District Commission, Planning Board, Zoning Board and other relevant bodies, to provide a non-binding review process that would produce clear recommendations for all projects during the early design phase. This must include ensuring that waterfront development allows for public access to the water.	√				Planning Board, Historic District Commission, Conservation Commission, Community Development Department.

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-30	Implement planning guidelines to protect and regain the ability to see the bays and walk to the water's edge, particularly with regard to the future development or redevelopment of waterfront properties, whether residential or commercial, in the Downtown Historic District.		√			Planning Board, Conservation Commission, and Community Development Department.
NHCR-31	Adopt agreed upon street-side improvement standards for lighting, benches, curbing and landscaping, consistent with current standards. Coordinate between Historic District Commission, Planning Board and Public Works to preserve historic elements. Create a list of allowable temporary uses in the Historic District. Adopt policies to require burial of utility cables underground to both improve appearance and reduce the incidence and expense of power outages. Require granite curbing on any state road repair by the RIDOT in the downtown historic district.		√			Town Administrator, Department of Public Works, Historic District Commission, Community Development Department, and Conservation Commission.
NHCR-32	Continue to implement the recently adopted Wayfinding Plan that carries this same "look" of the signage at the Town borders throughout the directional and identification signage in town, e.g., parking, museums, the waterfront, shops, hotels and inns.	√				Town Administrator, Department of Public Works, and Historic District Commission.
NHCR-33	Engage the Newport Chamber of Commerce in an advertising campaign to publicize and promote the Bristol - Newport Heritage Trail. Continue to partner with non-governmental organizations (Explore Bristol, Roger Williams University, Newport Convention and Visitors Bureau, etc.)	√				Town Administrator.
NHCR-34	Make sure waterfront development allows for preservation of viewscapes and public access to and along the water.				√	Planning Board

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-35	In conjunction with implementation of the Phase 2 and Phase 3 Stormwater Management Plan, distribute the Department of Environmental Management "After the Storm" educational brochure to notify the public about ways to decrease residential non-point source pollution and point source pollution targeting waterfront properties.	√				Town Administrator and Community Development Department.
NHCR-36	Continue to Educate and train town departments, commissions, and boards on Low Impact Development (LID) principles and require developers to comply with same. Utilize the URI cooperative extension as a resource.				√	Town Administrator and Community Development Department.
NHCR-37	Expend educational program for residents of flood zones and nearby downstream neighborhoods to promote awareness of flood hazards and emergency responses.				√	Town Administrator and Community Development Department.
NHCR-38	Continue to develop and expand cultural and natural heritage programs in the local schools so as to more strongly familiarize children with Bristol's history and cultural richness. Example: Mosaico's Sense of Pride Program. Engage the elderly population in the historic programs as well with programs such as oral history.	√			√	School Department, Town Clerk, Town Council and other appropriate non-governmental agencies
NHCR-39	Establish a 200 ft. buffer zone along the Mt Hope Bay shoreline extending from Hopeworth to the Mt Hope Bridge. Further establish a walking trail within the above noted Mt Hope Bay shoreline 200 ft. buffer area, including lateral access.		√			Planning Board, Community Development Department, and Town Council.

#	ACTION	TIME FRAME[4]				RESPONSIBLE AGENT
		S	M	L	O	
NHCR-40	Implement "green infrastructure" projects in areas of poor drainage and to help water quality. Include green parking lots and the retrofit of existing paved streets, where feasible, to lessen the amount of impervious area and create landscaping areas with swales and rain gardens that help with drainage. Consider "ecological art" projects in neighborhoods which not only help with drainage but also create a sense of place.	√	√			Recreation Department, Department of Public Works, Department of Community Development
NHCR-41	The Kickemuit River is an asset to the community for its recreational and natural value. The preservation of this water as a SA water body, suitable for shellfishing and recreational water uses, is of utmost importance and a goal of the Town. The area surrounding the Kickemuit River and its tributaries will be maintained to preserve the high water quality of the river.				√	Town Council, Planning Board, and Community Development Department.
NHCR-42	Develop a stand-alone Environmental and Historic Preservation Plan to identify and mitigate potential loss to historic resources associated with natural disasters, primarily threats to sea-level rise, subsidence, and flooding, particularly in the historic waterfront district.	√				Planning Board, Historic District Commission, Conservation Commission, Community Development Department.

Open Space, Conservation & Recreation

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-1	The Town should develop a comprehensive recreational plan to identify long and short term needs for properties and facilities. The plan must include ongoing maintenance and be environmentally responsible.	√				Recreation Department, Community Development Department, Recreation Board.
OSCR-2	Improve existing recreational fields at Mt. Hope High School to provide additional recreational opportunities and improve and manage drainage and runoff into Silver Creek in an environmentally sustainable manner in order to maximize the usage of the existing athletic fields. Create a Master Plan of the area to include potential improvements for drainage as well as recreational areas.	√				School Department, Recreation Department, Department of Community Development, Town Administrator.
OSCR-3	Seek to acquire land area between Sherman Avenue and Kickemuit Road for playlot/neighborhood park facilities. There is a vacant town lot on Lisa Lane that might be appropriate.		√			Planning Board, Community Development Department.
OSCR-4	Seek to upgrade existing open space parcels in the Mason Farms neighborhood so that they are more usable recreation parcels. This could include simply clearing and seeding so that children have an area to throw a football or fly a kite.		√			Recreation Department, Town Administrator.
OSCR-5	Seek to acquire land for a neighborhood playground in the Kickemuit-Narrows Road area.			√		Town Council, Town Administrator.

[5] S: short-term 1-3 years; M: medium-term 4-7 years; L: long-term 8-10 years; O: ongoing

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-6	Assess the conditions and potential alternate uses of the existing Bristol Golf Course including improvements to the land for natural habitat, wetlands, and flood protection as it relates to Silver Creek.	√				Town Administrator, Planning Board, Town Council, Recreation Department, Department of Community Development
OSCR-7	Require best management practices to preserve wetlands, flood plains and other environmentally sensitive areas in proposed land development projects.	√				Planning Board, Community Development Department
OSCR-8	Improve the existing recreational facilities at Guiteras Field to make them more versatile and maximize its usage.		√			School Department, Recreation Department, Town Administrator.
OSCR-9	Continue to develop the Quinta-Gamelin community center as an indoor, multi-purpose community recreation center including, if feasible, swimming pools.	√				Recreation Department, Community Development Department, Town Administrator, Town Council.
OSCR-10	Incorporate the need for neighborhood recreation into plans for the use or reuse of school sites.				√	School Department, Recreation Department.
OSCR-11	Incorporate picnic sites into park and recreation areas.	√				Recreation Department.

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-12	Pilot a program to create community gardens within high density residential neighborhoods and school yards.	√				Department of Human Services, Community Development Department.
OSCR-13	Consider supplementing existing Town-wide tree planting program to include fruit trees as an additional source of food for residents ("edible landscapes").	√				Tree Commission, Department of Community Development
OSCR-14	Create a Master Plan of proposed improvements to the drainage, seating and overall appearance of the Town Common, recognizing its role as a focal point of downtown Bristol and its historical significance as Rhode Island's first Town Common.	√				Recreation Department, Town Administrator.
OSCR-15	Consider the passive and active recreational needs of all Bristol residents by querying facilities such as Franklin Court, Benjamin Church Manor and others as to the needs of their populations. Possible additional recreational sites might include bocce courts, handicap accessible foot paths, etc.	√			√	Recreation Department, Recreation Board.
OSCR-16	Develop "pocket-parks" at the Aaron Avenue and Gibson Road public shoreline access points. These should include small neighborhood parks with benches and possibly playground equipment. These areas currently do not have any park amenities.			√		Community Development Department, Recreation Department, Recreation Board.

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-17	Continue to acquire or purchase land, development rights and/or conservation easements in the Mount Hope Area, including the portion owned by Brown University. This site provides an excellent opportunity to learn about the history of our region while enjoying an important natural conservation area.			√		Town Administrator, Town Council, Community Development Department.
OSCR-18	As part of a program of limited, flexible development in the Mount Hope Planning Area, protect the maximum possible amount of land for conserved open space, placing priority on a beach area, and on woods and fields that are not wetlands and that add links to the Path System.			√		Planning Board, Community Development Department.
OSCR-19	Continue to acquire additional acreage along the west and east branches of the Silver Creek watershed to add to the Town's greenbelt path system, protect sensitive wetlands and prevent development from increasing flood and storm damage potential.	√	√			Community Development Department, Town Administrator, Town Council, Conservation Commission.
OSCR-20	Contact owners of private parcels that are important potential open space and recreation amenities in town, and discuss how these amenities might be conserved over time. Other options, such as conservation easements, purchase of development rights, right of first refusal, tax incentives, grants, zoning ordinances, conservation development, wetlands protection, and other regulations, should be used in addition to outright purchase for obtaining and preserving recreation, conservation, and open space sites.	√	√			Community Development Department, Town Administrator, Town Council, Conservation Commission.
OSCR-21	Consider dedicating real estate conveyance tax funds to open space conservation and recreation facility maintenance.				√	Town Council, Finance Department.

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-22	Property management plans should be developed for all Town-owned open space and recreation parcels.		√			Conservation Commission, Department of Community Development, Recreation Department, Town Administrator
OSCR-23	Continue to consult and coordinate with the Conservation Commission on expenditures of open space funds and implementation of the Open Space Plan.				√	Community Development Department, Town Council.
OSCR-24	Pursue the acquisition of conservation or development easements to the Columban Fathers and Sisters of St. Dorothy properties.		√			Community Development Department, Town Administrator, Town Council.
OSCR-25	Expand the Greenbelt and Path System by exploring the acquisition of land or easements (some of which may be available from subdivision dedications) in the following areas: a) Silver Creek, west branch to Gooding Avenue b) Silver Creek, east branch from downtown to the high school and the golf course c) Land north from golf course to Warren town line d) Northern trail connecting the East Bay Bike Path and the Kickemuit River through Perry Farm. e) Trail along Mount Hope Bay from the northern trail, through the Haffenreffer Estate, and on south to connect with the Roger Williams University shoreline path f) East/west connections between eastern neighborhoods and the Silver Creek link, and	√	√ √ √	√ √		Planning Board, Community Development Department.

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
	between Mount Hope and the historic Downtown and Waterfront. g) The Harbor's Edge Walk along the downtown waterfront to link existing boardwalks and park properties to the East Bay Bike Path.	√				
OSCR-26	Work with the state to continue the path system through the State Park Planning Area.			√		Recreation Department
OSCR-27	If feasible, build and maintain a public swimming facility. With Bristol's geographic location as a peninsula it is important to provide swimming safety education to all residents.	√				Recreation Department, Town Council, Town Administrator
OSCR-28	Improve and maintain existing neighborhood playgrounds (Cedarcrest, Sowams, Coelho, and Town Common) and playground equipment. Consider other residential locations where appropriate.		√			Recreation Department, Community Development Department
OSCR-29	New subdivisions should have a recreational component similar to open space conservation developments.		√			Community Development Department, Planning Board
OSCR-30	Develop an overall recycling plan for Town parks and recreational facilities.	√				Recreation Department, Department of Public Works, Bristol Recycles
OSCR-31	Improvements to Town-owned Leahy Pond open space for passive recreational activities including walking trails and improved water quality.			√		Recreation Department, Department of Community Development

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-32	Promote and develop bicycle and pedestrian friendly streets and infrastructure to encourage visitors using the East Bay Bike Path to explore further into downtown Bristol.	√				Community Development Department, Recreation Department, Department of Public Works Town Council
OSCR-33	Explore increased recreational bow hunting opportunities.		√			Recreation Department, Town Council
OSCR-34	Waterfront recreational facilities such as docks and boardwalks should be constructed and/or reconstructed with higher tides and storm surges in mind (ex. higher pilings for docks)			√		Recreation Department, Harbor Master, Department of Community Development
OSCR-35	Facilities at the Bristol Town Beach should be sited and renovated with higher tides and storm surges in mind.			√		Recreation Department
OSCR-36	Recreational facilities should utilize energy efficient practices, such as efficient lighting, and clean energy sources.		√			Recreation Department
OSCR-37	Review and amend zoning ordinance and development review regulations to encourage agriculture related retail activities such as farm stands and related items.	√				Department of Community Development, Planning Board, Town Council

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-38	Maintain the downtown docks and ramps for commercial and recreational fishing and boating.				√	Harbor Department, Town Administrator, Town Council.
OSCR-39	Pursue improvements to boat ramp out halls within State Street ramp riparian rights.	√				Harbor Department, Harbor Commission
OSCR-40	Maintain existing rights of way to the shore to keep them clear and safe for pedestrians.				√	Harbor Commission, Recreation Department.
OSCR-41	Acquire land along the shore of the Mount Hope Bay, and maintain existing waterfront public access points.			√		Town Administrator, Community Development Department, Town Council, Recreation Department.
OSCR-42	Publicize existing public waterfront access points throughout town, as well as land and water paths and trails. Continue support of the CRMC Adopt-an-Access Program.	√				Town Administrator, , Harbor Commission, Recreation Department.
OSCR-43	Continue to maintain a path along the South Lane Right of Way, extending it down to the water's edge access point.			√		Community Development Department, Harbor Commission, Recreation Department.

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-44	Extend the Harbor's Edge Walk that connects the public parks and access points between Independence Park and the Coast Guard Station through easements and acquisitions during the development approval process.	√				Community Development Department, Planning Board, Town Administrator, Town Council.
OSCR-45	Redesign improvements to the entrance, boat launch, and add amenities such as kayak racks to Independence Park to better serve residents and visitors	√				Community Development Department, Recreation Department, Harbor Department, Town Council.
OSCR-46	Promote recreational fishing opportunities including public education and the development of facilities such as fishing piers.	√				Harbor Commission, Harbor Department Recreation Department, Community Development
OSCR-47	Promote Bristol's natural settings and resources as a means of increasing tourism and economic development.	√				Town Administrator, Town Council, Recreation Department
OSCR-48	Explore the feasibility of a shallow man-made open air skating rink.	√				Recreation Department, Town Administrator
OSCR-49	Explore the feasibility of an indoor skating/hockey rink. Consider a regional facility in partnership with Roger Williams University or other neighboring towns.		√			Recreation Department, Town Administrator, Town Council

#	ACTION	TIME FRAME[5]				RESPONSIBLE AGENT
		S	M	L	O	
OSCR-50	Explore the possibility of improving the areas around ponds currently used for skating such as Leahy and Gibson Ponds.		√			Community Development Department, Recreation Department.
OSCR-51	Amend this plan as needed following the completion of the Needs Assessment and Work Plan that is ongoing in conjunction with the RIDOH Health Equity Zone Grant.	√				Community Development Department, Recreation Department.

Circulation and Transportation

The following circulation implementation strategy is organized by four areas of action: regulatory, service improvements, capital improvements, and areas requiring future study.

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
C-1	Study impacts to certain areas in Bristol due to climate change resulting in projected sea level rise and greater rainfall amounts. Develop a plan for alternate roadways that will not be affected by sea level rise. Areas affected include low lying areas in the Silver Creek watershed, Poppasquash Road to Coggeshall Farm Road, Poppasquash Road at Hope Street to Oliver Street, and low lying points on Chestnut Street and Gooding Avenue.	√	√			RIDOT, Department of Public Works, Community Development Department, Planning Board, Town Administrator, and Town Council.
C-2	Implement the Metacom Corridor Management Plan: a) Short- and long-term traffic recommendations are proposed to improve traffic safety and capacity on Metacom Avenue while retaining the two-lane roadway. As Metacom Avenue (Route 136) is a state road, recommendations are presented to the Town of Bristol for proposed traffic improvements by the Rhode Island Department of Transportation (RIDOT). Emphasis is on providing residents with an opportunity to walk or bicycle to local destinations as options to the use of private vehicles for local trips. b) Short-term recommendations include left turn lanes, , a speed study to reduce speed limits to reflect adjacent land use and actual travel speeds, institute coordinated traffic signals to enhance traffic flow, sidewalk and crosswalk installation between Tupelo Street	√	√	√	√	Planning Board and Town Council.

[6] S: short-term 1-3 years; M: medium-term 4-7 years; L: long-term 8-10 years; O: ongoing

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
	and Bay View Avenue, an additional RIPTA bus stop at the Veterans Home, and designation of a "share the road" bicycle facility. These improvements may generally be conducted within the existing (approximate) 60-foot right of way. c) Neighborhood interconnections are strongly recommended between plats east of Metacom Avenue to reduce traffic volumes on Metacom Avenue and to facilitate access to signalized intersections. Longer term improvements, including those which require right-of-way acquisition, include construction of roundabouts at Tupelo Street, Gooding Avenue, Chestnut Street and on Bristol Ferry Road in lieu of the current east-bound left turn signal, and at the intersection of Bristol Ferry Road and Metacom Avenue to improve traffic flow and to provide a gateway to Bristol). Other improved intersections are proposed at Franklin Street and Minturn Farm Road. d) A center turn lane the entire length between the Bristol/Warren town line to the north and Woodlawn Avenue to the south, as well as coordinated traffic signals with longer times for green lights for north and south bound traffic during peak times.					
C-3	Explore the feasibility of a regional parking facility to serve as parking for a regional rapid transit van or bus line system that would run along the power line easement.			√		Planning Board and Community Development Department.
C-4	Continue the town policy prohibiting new private roads.	√			√	Planning Board

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
C-5	Continue to allow on-street parking on all non-arterial roadways.	√			√	Town Administrator, Police Department, and Town Council.
C-6	As noted on the Bristol Comprehensive Plan 2009 Circulation Map #9, in an effort to have sustainable development that is less reliant on the automobile, encourage a land development pattern that supports the use of alternative modes of transportation. Provide linkage between neighborhoods and to other land uses (schools, commercial areas, recreation areas) through roadway connections, pedestrian walkways (can be via off-street trails) and bicycle paths. Enable easy access from residential areas to commercial and employment area through the use of alternate modes of transportation (i.e. shuttle bus, pedestrian walkways and bicycle paths. For example, create a pedestrian walkway from the east side of the Robin Rug parking lot to Hope Street between Church and Constitution. Where any access would utilize power line easements, investigate all health, safety, and security issues and mitigate all such issues before implementation.	√	√			, Planning Board, Town Council, and Community Development Department.
C-7	Consider, and require when appropriate, alternative modes of transportation (i.e. bus stops, parking for car pools, electric recharge stations, and appropriate shelters) as part of new and revitalized developments. See also Metacom Avenue Corridor Management Plan for reduction in parking and alternative transportation credits.	√	√		√	Planning Board and Community Development Department.

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
C-8	Adopt and implement recommendations from the Scenic Roadway Corridor Management Study with RIDOT for Hope Street, Ferry Road and High Street.	√	√			RIDOT, Planning Board, Town Council and Community Development Department.
C-9	Continue to review traffic control device (e.g. stop signs, traffic calming devices, and pavement markings) placement and design policies to determine whether the Town is in compliance with state and federal standards.	√				Department of Public Works and Police Department.
C-10	Examine the feasibility of using a trolley system, or shuttle buses, as a local transit system and to conduct tours of Bristol which may be a way for "sightseers" to enjoy the Town while helping to reduce traffic on the Town's roads. Examine the feasibility and need for a Franklin/State Street loop bus system connecting with the waterfront. This system would provide parking for future mass transit use of the Bristol waterfront as well as provide transportation for elderly housing located along the route. Explore an arrangement with Roger Williams University or Benjamin Church Manor to use their shuttle buses for service within Bristol.		√			Town Council, Town Administrator, and Community Development Department.
C-11	Examine the potential for connecting neighborhoods to each other and to signalized intersections via a system of minor connecting streets and prepare a "Neighborhood Circulation Study" for the different neighborhoods where this could be accomplished, including along Hope Street and along Metacom Avenue as set forth in the Metacom Avenue Corridor Management Plan, especially in the neighborhoods along the east side of Metacom Avenue. This would assist the Planning	√				Planning Board and Community Development Department.

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
	Board and developers during the design and review process. The purposes of these connections would be to provide alternate emergency access to cul-de-sac streets; provide routes for local service vehicles such as police, school buses, fuel delivery and plowing; allow inter-neighborhood traffic for residents; and provide a signalized access to Metacom Avenue and Hope Street where such an access would be advantageous to local residents. These connections should not encourage non-local traffic flow nor should they provide means for future development to access collector streets solely through established neighborhoods. All such connections should seek to be narrow in width and staggered in location so as to discourage high speeds and drivers seeking alternate routes to collector streets. A general review of traffic patterns in neighborhoods in the East and West Shore Corridors should be performed in order to identify neighborhoods where such connections would be appropriate. Participation of neighborhood groups will be an important part of the process.					
C-12	Seek to connect the Narrows Planning Area with the Hopeworth Planning Area by a connection through the State-owned Veteran's Home property. This could be accomplished by a north-south connection from Roosevelt to Annamamscutt at the intersection with Montery, or as proposed in the Metacom Avenue Corridor Management Plan. There is a proposed future connection from the end of Viking Drive to Annawanscutt Drive; however, this would be a better pedestrian and bike trail connection due to the stream crossing and associated wetlands.	√				Planning Board, Community Development Department, and Town Council.

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
C-13	Work with RIDOT to implement the Metacom Avenue Corridor Management Plan.		√			RIDOT, Town Council, Town Administrator, and Community Development Department.
C-14	Work with the RIDOT to include a dedicated bicycle lane as part of any upgrade to the state's roads in Town.		√			RIDOT, Town Council, Town Administrator, and Community Development Department.
C-15	Examine options to upgrade Franklin Street so as to provide better access to the Bristol Industrial Park.		√			Town Council, Town Administrator, and Community Development Department.
C-16	Implement the Marine Transport Route Study which includes relocation or raising of utility lines and adjustments to turning radii within designated streets to facilitate the movement of large trailers and boats through town from the marine trades industries to the waterfront		√			Town Administrator, Community Development Department, and Town Council.
C-17	Provide bicycle parking facilities at each bus and van stop along the East Shore, West Shore and Central Corridor Street system. Provide designated bicycle corridors on key roadways linking the East Bay Bike Path with other areas of Town.	√				Recreation Department, Town Administrator and Department of Public Works.
C-18	Budget Town monies each year, and solicit state and federal grants when available, to extend and upgrade the Town's sidewalk system, with priority	√			√	Town Administrator, Community

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
	given to the Downtown area, the parade route along Hope Street, Ferry Road, and along collector streets such as Narrows Road, Annawamscutt Drive, and Hopeworth Ave.					Development Department, and Department of Public Works.
C-19	Require that granite curbs be utilized for the sidewalks along the Scenic Roadways. These not only add to scenic value but to durability as well.	√				Department of Public Works
C-20	Require underground utilities for all new developments.	√				Community Development and Planning Board
C-21	The Town is currently working jointly with the Town of Warren to study and develop a plan for the use of the National Grid easement for a pedestrian/bicycle path from Tupelo Street in Bristol to Child Street in Warren. Given the wetland constraints and the National Grid easement limitations, it is unlikely that the easement will be able to be used for vehicular access and the path is a good alternative. Upon completion of the study, the Town should consider moving forward to implement the recommendations, revising this plan as needed.	√				Community Development Department, Town Administrator, and Town Council.
C-22	Encourage the maintenance of the tree island at the intersection of Routes 114 and 136 near Roger Williams University, in consistency with highway safety, during any road improvement programs for that area.	√			√	RIDOT
C-23	Improve pedestrian safety in the Downtown by traffic calming techniques, and better delineation of the crosswalks with signage indicating that the law requires drivers to stop. Implement the Wayfinding Plan to improve the signage identifying public parking areas in the Downtown.	√				Town Administrator and Town Council.

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
C-24	Improve the drainage on existing roadways, especially in older neighborhoods. Provide for improved stormwater systems and utilities, including water quality measures, when upgrading or reconstructing roads.	√				Town Administrator and Department of Public Works.
C-25	Explore the feasibility of small parking garages to serve areas with insufficient accessible parking. Identify key parcels that should be publicly controlled so as to have maximum public control over redevelopment efforts.	√				Community Development Department.
C-26	Study options for improving public transportation with RIPTA and Ferry Service including improvements to transit stops.		√			RIPTA, Community Development Department.
C-27	Identify existing paper streets and assess their potentials as roads, pedestrian walkways and/or bicycle paths.		√			Community Development Department and Planning Board.
C-28	Study and implement techniques for traffic calming along busy arterial streets to protect residents and pedestrians.	√			√	Community Development Department
C-29	Identify sites that could be used for additional park and rides for either RIPTA or a local "town loop" system.	√			√	Community Development Department
C-30	Continue to implement the Corridor Management Plan for the Metacom Avenue Arterial roadway, including standards for landscaping, reduced signage, design and site guidelines for new development, coordinated curb cuts and layout for the service road along the west side between Tupelo and Gooding.	√				Community Development Department, Planning Board, and Town Council.

#	ACTION	TIME FRAME[6]				RESPONSIBLE AGENT
		S	M	L	O	
C-31	Working with the Town of Warren, continue to push the RIDOT for upgrades on Metacom Avenue for improved safety and circulation.	√				RIDOT, Town Council and Town Administrator.
C-32	Work with RIDOT to expedite improvement projects within Bristol.	√			√	RIDOT, Town Council and Town Administrator.
C-33	Require underground utilities as part of any major road upgrade by RIDOT.	√				RIDOT, Town Council and Town Administrator.
C-34	To aid in economic development and alleviate traffic, evaluate the economic feasibility of establishing rapid water transit to/from Bristol and Providence, and to/from Bristol and Newport. Considerations should include the number of projected commuters during the workday, the number of projected tourists during the tourist season, and everyday non-commuter and non-tourist use.		√	√		Community Development Department and Planning Board.
C-35	Develop a plan with locations of electric vehicle charging stations. Consider supermarket parking lots, downtown public parking lots.	√				Department of Community Development
C-36	Work with the RIDOT and the other East Bay Towns to develop a regional, multi-modal transportation corridor study to improve the safety of the transportation network with low cost, quick solutions. The projects that would come out of a corridor study plan would make future funding requests to the RIDOT more competitive.	√	√			Department of Community Development, Planning board, Town Council
C-37	Post signs that indicate where major access routes are and where early evacuation is necessary prior to a storm event.	√				Town Council, Town Administrator Department of Community Development

Services and Facilities

#	ACTION	TIME FRAME[7]				RESPONSIBLE AGENT
		S	M	L	O	
SF-1	In 2013, the Town prepared a Capital Improvement Plan (CIP) in order to prioritize future funding needs. The Town should continue to update and put aside money in the Town's budget to implement the CIP and comprehensive plan for prioritized issues.	√			√	Town Administrator and Town Council, Finance Department
SF-2	Consider appointing an existing position in Town government to assume the functions of a "Recycling Coordinator." Improve and emphasize public education of recycling and composting and provide bilingual sources of recycling and composting information.	√			√	Town Administrator, Town Council.
SF-3	Move forward with the recommended improvements for the Phase 2 Tanyard Brook and State Street Reservoir. Seek Federal and State Grants to augment funding of this project to supplement the Town bond.	√	√			Department of Public Works
SF-4	Upgrade Bristol County's current water supply sources to ensure long term viability and redundancy. Construct new water towers in high demand areas and where required to increase pressure (along northern part of Metacom Avenue) and maintain existing towers.		√	√		Bristol County Water Authority
SF-5	Continue taking necessary steps toward the long term rehabilitation and long-term availability of the drinking water reservoirs, the treatment plant and the raw water transmission lines; including, the Shad Factory Pipeline. Add other reservoirs. Maintain watershed rights and ownership to Shad Factory Pipeline.	√			√	Bristol County Water Authority
SF-6	Establish a municipal drought management response strategy between the Town and the BCWA, in conjunction with state agencies and in compliance with the State Guide Plan Element 721 Rhode Island Water 2030.	√				Town Council and Bristol County Water Authority.

[7] S: short-term 1-3 years; M: medium-term 4-7 years; L: long-term 8-10 years; O: ongoing

#	ACTION	TIME FRAME[7]				RESPONSIBLE AGENT
		S	M	L	O	
SF-7	Pursue options for additional water supply for temporary shortages. Consider creation of a desalization plant for additional emergency water supply. See action item 9 above.		√	√		Bristol County Water Authority, Town Administrator and Community Development Department.
SF-8	Encourage water conservation techniques such as gray-water usage, blue buildings, and low-flush toilets. This should be required on all government buildings and encouraged in all future commercial and industrial buildings.	√			√	Bristol County Water Authority, Department of Community Development and Town Council.
SF-9	Work to improve traffic flow for residential and emergency vehicles on the east side of Metacom Avenue and the west side of Hope Street. Continue to implement the Metacom Avenue Corridor Management Plan and advocate the installation of roundabouts.	√	√			Planning Board, and Department of Community Development
SF-10	Upgrade and repair the emergency communication and warning system. Increase public awareness of the system (e.g., signage). Implement an Emergency Call System to notify Bristol residents.	√				Emergency Management Officer, Police Department, Town Administrator
SF-11	Pursue expansion of the Police Station, to utilize the recently acquired abutting property, as part of the proposed Capital Improvement Plan.		√	√		Police Department
SF-12	Create an energy committee to coordinate and oversee implementation of energy saving initiatives.	√			√	Town Administrator and Town Council

#	ACTION	TIME FRAME[7]				RESPONSIBLE AGENT
		S	M	L	O	
SF-13	Review and if necessary, revise and update the Wastewater Facilities Plan of April, 2000.	√				Department of Water Pollution Control
SF-14	Pursue creation of a Stormwater Management District to help fund stormwater upgrades and as an incentive to reduce impervious pavement in areas of poor drainage.	√				Town Administrator, Town Council, Finance Department
SF-15	Work with local utilities and conduct a thorough review of municipally-owned buildings and facilities to determine baseline energy usage for electricity and heat.	√			√	Town Administrator, Department of Public Works
SF-16	Establish a capital improvement planning process for the investments required to improve energy efficiency in municipally-owned buildings and facilities.	√			√	Town Administrator, Department of Public Works
SF-17	Implement the drainage improvements at the High School parking lot and Guiteras School parking lot. These improvements will address stormwater runoff as well as water quality that impacts the Silver Creek watershed.	√			√	Department of Community Development, School District
SF-18	Continue to implement the Town's sidewalk maintenance program. Require new sidewalks as part of private development along Metacom Avenue.	√				Town Administrator, Department of Public Works, Planning Board, Department of Community Development

#	ACTION	TIME FRAME[7]				RESPONSIBLE AGENT
		S	M	L	O	
SF-19	Amend the Zoning Ordinance to include a new a Public Zone to allow a mix of uses (but not residential) in the decommissioned school buildings on High Street (Walley and Byfield on Town Common and Reynolds on High Street). Move forward with renovations to the former Walley School to facilitate its re-use. Consider re-use as artist space, incubator space, or shared work space.	√				Town Administrator, Planning Board, Town Council and Department of Community Development,
SF-20	Renovate Town Hall with a state-of-the-art projector and sound system for presentations to the Town Council.	√				Town Administrator, Department of Public Works
SF-21	When feasible, convert Town buildings (i.e. Quinta Gamelin) to a natural gas heating system.	√				Town Administrator, Department of Public Works
SF-22	Given the expected increase in the Town's elderly population, the Town should conduct an assessment as to the space needs at the Senior Center to determine the feasibility of either a physical expansion of the existing facility or the development of a new Center. The Town should also address the potential need for an expansion of the services offered at the Center.	√				Town Administrator, Town Council, Senior Center, Department of Parks and Recreation
SF-23	Implement educational programs and services to help seniors retrofit their homes in order to support aging in place.	√			√	Senior Center
SF-24	Move forward with changing out street lights for LED lighting. Explore the option of acquiring the street lights from National Grid as now allowed with the recent passage of the State Law for an anticipated significant annual cost savings.	√			√	Town Administrator, Town Council and Department of Public Works
SF-25	Assess Town owned buildings for structural and safety requirements and energy efficiency upgrades.					Town Administrator, and Department of Public Works

#	ACTION	TIME FRAME[7]				RESPONSIBLE AGENT
		S	M	L	O	
SF-26	Improve the Public Works building and consider ways to improve the drainage since this is located in the Tanyard Watershed. Keep options open for re-locating out of the watershed.		√			Town Administrator, Department of Public Works
SF-27	To coordinate the drainage improvements and restoration of the Silver Creek Watershed, complete a Master Plan of the area including the High School property and the Town-Owned Golf Course.	√				Recreation Department, School Department, Department of Community Development
SF-28	Develop a long-range energy reduction plan for municipal operations. The Town should seek ways to reduce the cost of municipal energy use and its carbon footprint. This strategy could advance efforts to develop public and private partnerships and to also reduce residential and business energy use. The Town should pursue grant funding to upgrade the energy efficiency and increase the use of renewable energy in its municipal buildings and seek ways to reduce energy costs across all municipal operations.	√				All departments
SF-29	Investigate the feasibility and effectiveness of programs designed to further encourage higher recycling and composting rates such as “Pay-as-You-Throw”.	√				Department of Public Works
SF-30	Investigate the feasibility of siting the Everready Fire Station out of the flood zone.		√			Fire Department , Department of Community Development
SF-31	Participate in the Lead by Example Program of the RI Public Energy Partnership for energy efficiency programs for municipalities	√				Department of Community Development
SF-32	Examine the zoning ordinance and permitting for small scale roof top solar systems focusing on those structures in this historic district.	√				Department of Community Development

#	ACTION	TIME FRAME[7]				RESPONSIBLE AGENT
		S	M	L	O	
SF-33	Establish an energy use baseline and develop a plan to reduce energy use by 20% within 5 years.	√				Town Council, Town Administrator Department of Community Development
SF-34	Adopt a resolution designating Bristol as a Property Assessed Clean Energy Municipality.	√				Department of Community Development; Town Council
SF-35	Set requirements to minimize lifecycle energy costs for new construction, one way is to adopt an approved high performance building "stretch code".	√				Department of Community Development
SF-36	Conduct Drainage Improvements at the Wastewater treatment facility and upgrade the sewer lines were necessary as part of the Town's structural projects for pre-disaster mitigation	√				Department of Water Pollution Control

Appendix A

Bristol County Water Authority Executive Summary

BRISTOL COUNTY WATER AUTHORITY

Bristol, Barrington and
Warren, Rhode Island

WATER SUPPLY SYSTEM MANAGEMENT PLAN

EXECUTIVE SUMMARY

December, 2010

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EXECUTIVE SUMMARY

Introduction

The Bristol County Water Authority was formed for the purpose of:

- Purchasing the private Bristol County Water company and operating the water system
- Rehabilitating and upgrading the distribution system
- Building and operating a connection to the Providence Water supply system

The three goals established for the Authority are all within the overall goal of providing a sufficient supply of potable water to meet the needs of the resident of Bristol County.

In order to supply the citizens of Bristol County with sufficient supplies of potable water to meet their needs, the Authority prioritizes to the following activities:

- Comply with all applicable laws and regulations
- Implement the Bristol County Water Supply Act including:
    - Maintain the East Bay Pipeline
    - Maintain the emergency connection and pump station with the City of East Providence
    - Rehabilitate the water transmission line to its existing reservoirs (Shad Factory Pipeline)
    - Upgrade the child Street Treatment Plant to meet Safe Drinking Water Act requirements at high rates of production and above 3MGD
    - Rehabilitate, upgrade, renovate as necessary, the surface water system of reservoirs, dams, dikes, etc. to provide for a reliable long term supply
    - Maintain the distribution system of pipes and storage tanks in good, sound and safe condition

- Provide for service to all locations within the service area
- Conform to the overall goals for water suppliers established in the State Guide Plan Element No. 721

Water Supply System Description

Organization and Legal Structure

The Bristol County Water Authority (BCWA) was organized in February 1984 for the purpose of acquiring the private Bristol County Water Company and solving persistent problems associated with insufficient water supply, insufficient water pressure and unpleasant water quality as described in the Historical Perspective section. The BCWA is a public corporation created by an Act of the Rhode Island Legislature, Chapter 102 of the Public Laws of 1981 as amended. The Act required authorization by the Towns of Barrington, Warren and Bristol, which was completed by referendum in each of the Towns in November 1983. The referendum was approved by greater than 80% of the voters in each of the three towns.

The legislation called for each of the Town Councils to appoint three members to the Authority and each of the Town Councils appointed the initial members in early 1984. Since the organization of the Bristol County Water Authority in early 1984 the Board of Directors has completed the following actions from the charge of the Bristol County voters:

- Purchased the Bristol County Water Company,
- Established programs and procedures, continually worked on the rehabilitation and upgrading of the distribution system, completing the upgrade of nearly 60 miles of pipelines in the distribution system through fiscal year 2011 and
- Successfully completed in 1998 construction of the East Bay Pipeline, along with the associated booster pumping station at Nayatt Road in Barrington and the emergency connection and pumping station in East Providence.

The Board of Directors establishes policies and budgets. Control of operations is vested in the Executive Director. All employees of the BCWA are subject to the direction of the

Executive Director. The BCWA currently has 32 employees, down from 42 in 1992.

The BCWA organizational chart is included in the following page.

Water Supply Sources

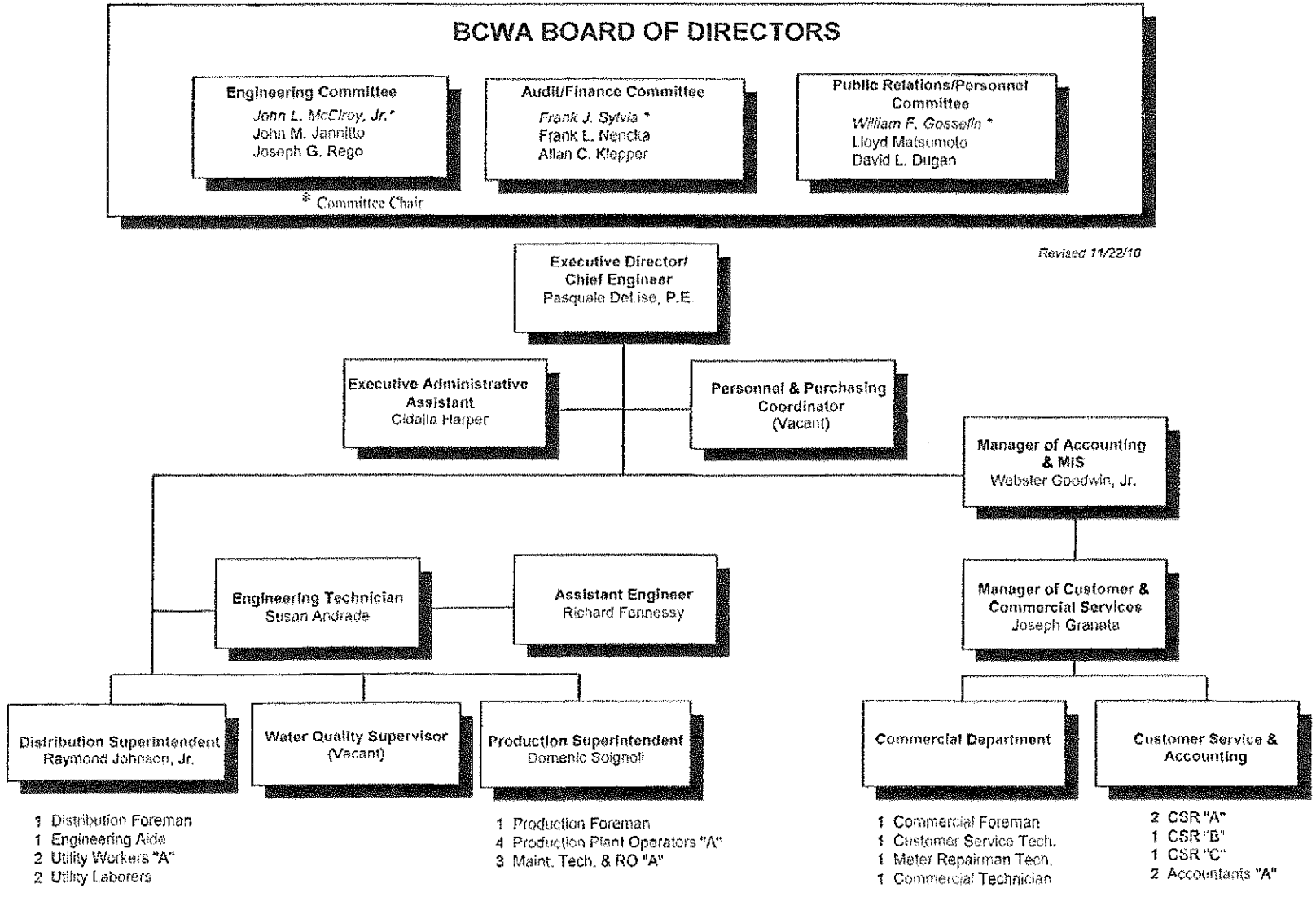
The BCWA operates and maintains a surface water supply consisting of a total volume of 356 million gallons and, which on the basis of safe yield, is capable of providing 70% to 80% of the average daily demand. However, at this time, this supply only provides approximately 30% of the County demand, due to the limitations of the Water Treatment Plant, with 70% of the demand purchased from Providence and transported through the East Bay Pipeline. These proportions will change after completion of Phase II Improvements at the Child Street Water Treatment Plant.

The BCWA surface water supply consists of four separate water bodies:

Kickemuit Reservoir located in Warren, RI	35 million gal
Swansea Reservoir located in Swansea, MA	154 million gal
Shad Factory Reservoir located in Rehoboth, MA	39 million gal
Anawan Reservoir located in Rehoboth, MA	128 million gal
Total	356 million gal
Massachusetts portion	90%
Rhode Island portion	10%

The water from all surface water bodies noted above is collected at the Kickemuit Reservoir in Warren, RI.

BRISTOL COUNTY WATER AUTHORITY



Treatment, Storage, and Transmission Facilities

Historically, BWCA has effectively operated two separate but interconnected water systems. One system, primarily servicing Warren and Bristol, obtained its water from the surface water sources through the Child Street Treatment Plant. The other portion obtained its water mainly from the Nayatt Road well field, a groundwater source, through the Nayatt Road Treatment Plant. However, by October 2001 at the Nayatt Road well field, the average daily production was approximately 290,000 GPD. Increasing levels of Iron/Manganese at the Wells had reduced the output down to this low production. Rehabilitation of the Wells became more and more frequently necessary and yet resulting with lesser capacity. The overall cost to operate the Plant and maintain the Wells was deemed non-economical. BCWA decided to shut down the Plant on November 6, 2001, making up for the loss of production with water from the East Bay Pipeline; and then would at some point do an analysis of the well field and Plant. The initial analysis by BCWA deemed the current status not efficient and relatively cost prohibitive. It should also be noted that annual testing by the DOH indicated that Sodium levels were increasing each year, indicating underground intrusion of salt water.

The system serving Warren and Bristol operates at a hydraulic grade line (HGL) established by the elevation of the Bay View storage tank (approximately 176 feet), located in Bristol, while the system serving Barrington operates at an HGL established by the Fountain Avenue standpipe (approximately 150 feet) located in Barrington, 26 feet lower than the Warren/Bristol system. The two systems are interconnected as follows:

- On Baker Street in Warren, crossing the Palmer River with a 12-inch main, to Mathewson Road in Barrington. (Inactive)
- Through one 12-inch main crossing the Palmer River at the North Main Street bridge from Warren to Barrington.
- Through a 24-inch main (the East Bay Pipeline) crossing the Warren River from Ferry Lane, Barrington to Water Street, Warren, to a 12-inch main at the intersection of Campbell Street and Main Street, in Warren.

Historically, flow through the 12-inch main in Baker Street was controlled by a pressure regulating valve on the Warren side; however, since the installation of the East Bay Pipeline, this 12-inch main was no longer needed and therefore was taken off service. The 12-inch main can be reactivated in the event it is needed for whatever reason.

A small portion of the Warren/Bristol system is serviced by a higher HGL of approximately 255 feet. This area consists primarily of residential units in the higher elevations of Bristol, east of Metacom Avenue. The area is served from the Metacom elevated storage tank located in Bristol, which receives its water from a booster pump station connecting to the Warren/Bristol system.

The normal pattern of water flow for either the Barrington or Warren/Bristol systems is from the Child Street Treatment Plant and is then pumped into the distribution system and storage tanks. In addition, water from the East Bay Pipeline is pumped at the Barrington Booster station into the system through the pipeline and a 12" main on North Main Street in Warren. The storage tanks feed water into the system and flows/pressure zones are controlled by the water level in the storage tanks. For the Barrington system, the Fountain Avenue standpipe is the controlling tank and for the Warren/Bristol system, the Bay View tank is the controlling tank. The high elevation service area is controlled by the elevated Metacom storage tank.

Treatment

The Child Street Treatment Plant is located adjacent to the Kickemuit Reservoir in Warren and is used to treat the surface water supplies. The plant was built in 1908 with additions in 1921 and 1947. The Plant was shut down on December 21, 2001 for the implementation of Phase I Improvements, and the entire County was supplied with Providence water transported from Providence across Narragansett Bay through the East Bay Pipeline until December 2005, at which time the Plant was put back on line.

The Child Street Treatment Plant can draw water from both the Kickemuit Reservoir and/or the Shad Factory Pipeline. The plant is continuously staffed and was originally built with a design capacity of approximately 4.0 million gallons per day. The water is treated with the following conventional process: coagulation, flocculation, sedimentation and filtration. The various chemicals that are added are: potassium hydroxide to raise the pH; aluminum sulfate and a polymer to enhance coagulation; chlorine dioxide to pre-disinfect; powdered activated carbon to control taste and odors; blended phosphate to control corrosion; sodium fluoride to prevent dental decay and sodium hypochlorite to post-disinfect and to provide a disinfectant residual.

Currently, the Child Street Water Treatment Plant is limited to operating at an average rate of approximately 1.4 MGD, due to its limited chemical treatment capacity in meeting current EPA Standards. Production above this level results in water quality deterioration.

Storage

The water distribution system includes approximately 220 miles of water mains ranging in size from 1-inch to 16-inch, with the majority of pipe being between 2-inch and 8-inch. Pipes are ductile iron and either unlined or cement lined cast iron. Major 12-inch transmission mains in Barrington extend from the Nayatt Road Booster Station in a northwesterly direction toward the Fountain Avenue storage tank and connect to the Bristol-Warren system in northern Warren. Major 12-inch and 16-inch transmission mains in the Bristol-Warren system extend from the Child Street Treatment Plant south in Metacom Avenue and Hope Street to south Bristol.

There are five distribution storage facilities in the distribution system, as follows:

- Hope Street Standpipe, located in Bristol, was built in 1908 and has a capacity of 500,000 gallons
- Bay View Storage Tank, located in Bristol, was built in 1928 and has a capacity of 2 million gallons
- Fountain Avenue Standpipe, located in Barrington, was built in 1952 and has a

capacity of 846,000 gallons

- Metacom Avenue Tank, located in Bristol, was built in 1970 and has a capacity of 250,000 gallons
- Ferry Road Storage Tank, located in Bristol, was built 2010 and has a capacity of 300,000 gallons

The total distribution system storage is 3.9 million gallons, or approximately one day's average demand on the system.

Pumping

The following pump stations are part of the BCWA system:

- Nayatt Road Pump Station (Inactive)
- Child Street Pump Station
- Barrington Booster Pump Station
- East Providence Emergency Pump Station
- Rehoboth Pump Station

The Nayatt Road Ground Water Treatment Plan is located at Nayatt Road in Barrington and is inactive. The Barrington Booster Pump Station, on the East Bay Pipeline, is also located at Nayatt Road, Barrington and raises the hydraulic gradeline (HGL) to the BCWA distribution system HGL. The Child Street Pump Station is located at the Child Street treatment plant in Warren and is used to pump treated surface water into the system.

The East Providence Emergency Pump Station is located on Pawtucket Avenue in East Providence.

The Rehoboth Pump Station is located in Rehoboth, MA and connects to the Shad Pipeline.

Transmission

Raw water is transported from the surface water reservoirs to the Child Street Treatment Plant through the Shad Pipeline and natural waterways in the watershed. The BCWA can transport raw water from the Shad Factory reservoir to the plant directly through the Shad Factory Pump station and pipeline. Water from the Anawan Reservoir flows to the Shad Factory Reservoir through the Bad Luck Brook. This transmission system has been the subject of much concern in the recent past. The Shad pipeline is in need of significant upgrading if it is to be effectively used by the BCWA. The Shad Factory pump station and transmission main originally had a design capacity of 3 mgd. This capacity has been limited by the age (more than 100 years) and the poor condition of the pipe, which limits the current operational pressure to approximately 40 psig.

In 2004 - 2005, a major portion of the existing Shad Pipeline was repaired at a cost of approximately $115,000 and recently Dewberry Engineering was hired for the engineering and design of a new Shad Pipeline. This project is expected to have a 6-year duration at an anticipated cost of $8.0 Million for a new pipeline and pump station, however this estimate is dependent upon the economics at the time when the project is actually bid. The BCWA is in the process of obtaining local permitting for the project and engineering is 90% complete.

The system is at present mainly supplemented by the East Bay Pipeline, which was put into operation in December 1998. The pipeline connects the Providence Water Supply System with the BCWA system from Providence to Warren, with a Booster Station located in Barrington. BCWA purchases water from Providence on a daily basis as needed.

The East Bay Pipeline is a 50,000 linear foot water main consisting of mainly 24-inch and 30-inch diameter ductile iron. It connects to the Providence Water supply system at Virginia Avenue in Providence. A 30-inch diameter water main extends from Virginia Avenue to the Columbia Park Meter Vault. After the meter vault and Harbourside

Boulevard, the pipeline reduces to 24-inch steel pipe and crosses the Providence River. After the Providence River, the pipe increases to a 30-inch diameter pipe and enters the Pawtucket Avenue Meter Vault/Pump Station. At this meter vault, an emergency connection and pumping station is connected to the East Providence system.

After the Pawtucket Avenue Pumping Station, the 30-inch pipeline continues to the Barrington Booster Pumping Station at Nayatt Road. After the Barrington Booster Pumping Station, the pipe reduces to a 24-inch pipeline to the Warren River. At the Warren River Crossing, the pipeline enlarges to a 28-inch diameter high density polyethylene (HDPE) pipeline. After the Warren River, the pipeline reduces to a 24-inch ductile iron pipe and connects to the BCWA system at its terminus at Main Street in Warren.

Distribution

BCWA surface water supply is treated at the Child Street Treatment Plant and delivered to the distribution system through 12-inch and 16-inch mains along Child Street and Metacom Avenue (Rte. 136) and Main Street/Hope Street (Rte. 114). Treated water from the East Bay Pipeline, through the Nayatt Road Booster Station is delivered along Nayatt Road and Washington Road to the Fountain Avenue standpipe and to Rumstick road, then along Rumstick Road to finally connect to the Bristol/Warren System on Main Street in Warren.

Interconnections

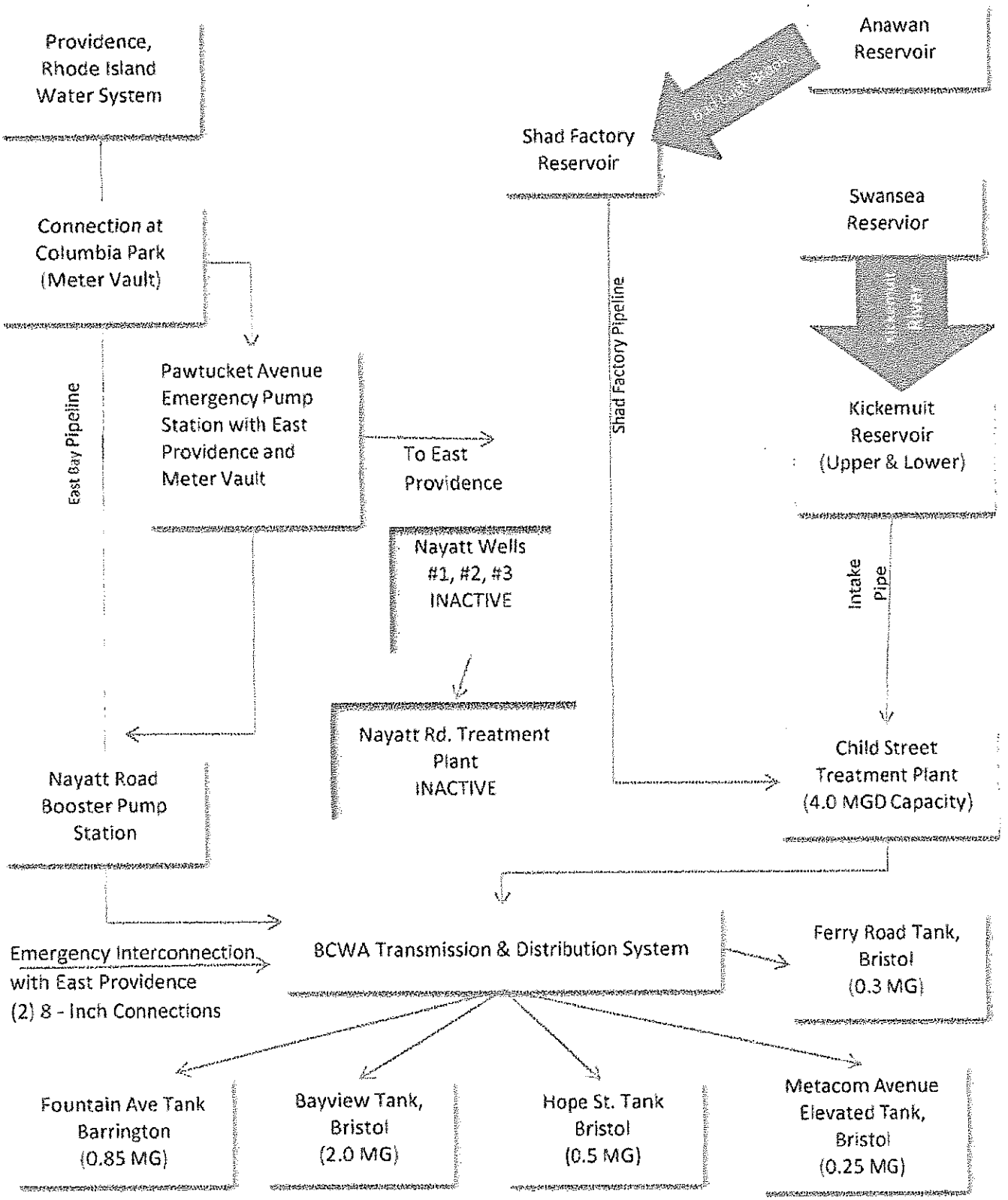
The BCWA has two additional 8-inch connections to the City of East Providence water system. One connection was completed in July 1987 and the second connection was completed in August 1987. The connections are classified as "emergency connections" and have been used when supplies in Bristol County were temporarily inadequate. The total available supply from these connections without pumping is approximately 1.0 million gallons per day. Theoretically, with pumping, the water available from these

connections is more than 1MGD; however, the BCWA considers the pumping scheme to be unreliable and therefore would only attempt to obtain more than 1.0 million gallons per day in an extreme drought situation or a dire emergency. To date, the pumping of more than 1.0 million gallons per day has not been needed or attempted. Water has been drawn from the East Providence connections to supplement supplies during some part of the early and mid 1990's for various reasons. Since the completion of the East Bay Pipeline, these two 8-inch connections have not been needed; however, they have not been disconnected or abandoned.

The East Providence Emergency Pump Station is supplied directly from the East Bay Pipeline. The East Providence system is connected to the East Providence Emergency Pumping Station through a 16-inch cast iron main in Pawtucket Avenue.
Studies are in progress at present time to improve emergency connections between BCWA and East Providence with the goal of interconnecting all crossings across Narragansett Bay. BCWA has engaged CDM to evaluate this piping schematic and the preliminary results are very favorable.

The interconnections with East Providence are controlled jointly by East Providence and BCWA. Use of these connections must be justified by an emergency situation or to conduct testing, and must not have any adverse effect on the East Providence and/or the BCWA systems. A graphical representation of the existing supply system is presented on the following page.

Bristol County Water Authority
Water Supply Management Plan
Existing Water Supply System Schematic



Service Area

The BCWA's service area consists of substantially all of Bristol County, 24.9 square miles in area, having a population of 50,648, according to the 2000 census.

The BCWA serves virtually the entire population of the County at present. Service is provided through 16,820 residential, commercial and industrial connections. The only areas in Bristol County not served by the BCWA include areas served by the Touisset Community Water system and the area commonly referred to as the Poppasquash section of Bristol, which is served by individual wells.

Source and Distribution Metering

The master meters are located in several locations throughout the system; two at the Child Street Plant, one at the Nayatt Road Booster Station, one at the Pawtucket Avenue, East Providence site and one at the Columbia Park, Providence site. The master meters at the plant measure flow from the plant (withdrawn from BCWA surface water supplies and treated at the Plant) into the transmission/distribution system.
Water drawn from the surface water sources is not separately metered. Plant use is determined by a combination of metering, in various places, and calculated flow rates where metering is not currently available.

In July, 2007, BCWA instituted a Three-Year Meter Modernization Plan to replace the remaining non radio-read meters. Between June, 2007 and July, 2010 BCWA replaced 8,557 non-radio read meters with Badger Orion Radio Read Meters. (See Exhibit #2). This program was funded through a Clean Water Financing loan, for a total cost-to-date of $1,504,817.09.

As of October 1, 2010, BCWA had 16,820 active metered accounts. Following is an analysis of the types of meters currently in use:

Active Accounts Meter Analysis:

Meter Register Type	# of Accounts	Percent
Orion Radio Read	8,582	51
Trace Radio Read	6,862	41
Manual Read	67	0.5
Telephone AMR	84	0.5
Remote Read	1,225	7
Total	16,820	100

System Production Data

The BCWA currently obtains water from its own surface water supplies, which is treated at the Child Street Treatment Plant, and treated water from Providence through the East Bay Pipeline.

Under the General Laws of Rhode Island, BCWA is allowed to purchase up to a maximum of 7.5 MGD from the City of Providence.

BRISTOL COUNTY WATER AUTHORITY	
SUPPLY	PRODUCTION (MGD)
Surface Water – Child Street	1.4 (Varies)
Purchased Water – Providence	7.50(Max)
Total Available Water	8.9
Average Daily Demand	3.5 – 4.0
Maximum Daily Demand	4.5 – 7.2

Major Users

The BCWA serves 10 major users, based on 2009 usage, as follows:

BRISTOL COUNTY WATER AUTHORITY	
Major Users	Uses of Water
Roger Williams University Ferry Rd., Bristol	Residential University
North Homeowners Association Hope Street, Bristol	Multi Residential
Blount Seafood Corp. 333 Water St., Warren	Seafood Processing
Cove Condo Association Baggy Wrinkle Cover, Warren	Multi Residential
St. Elizabeth Manor 1 Dawn Hill Rd., Bristol	Residential Nursing Home
R.I. Veterans Home Metacom Ave., Bristol	Residential Nursing Home
MMF Realty LLC 91 Main St., Warren	Multi Residential
Silver Creek Manor 7 Creek Lane, Bristol	Residential Nursing Home
Warren Housing Authority 20 Libby Ln., Warren	Multi Residential
Waterview Condo Association 510 Child Street, Warren	Multi Residential

Legal Obligation to Provide Water

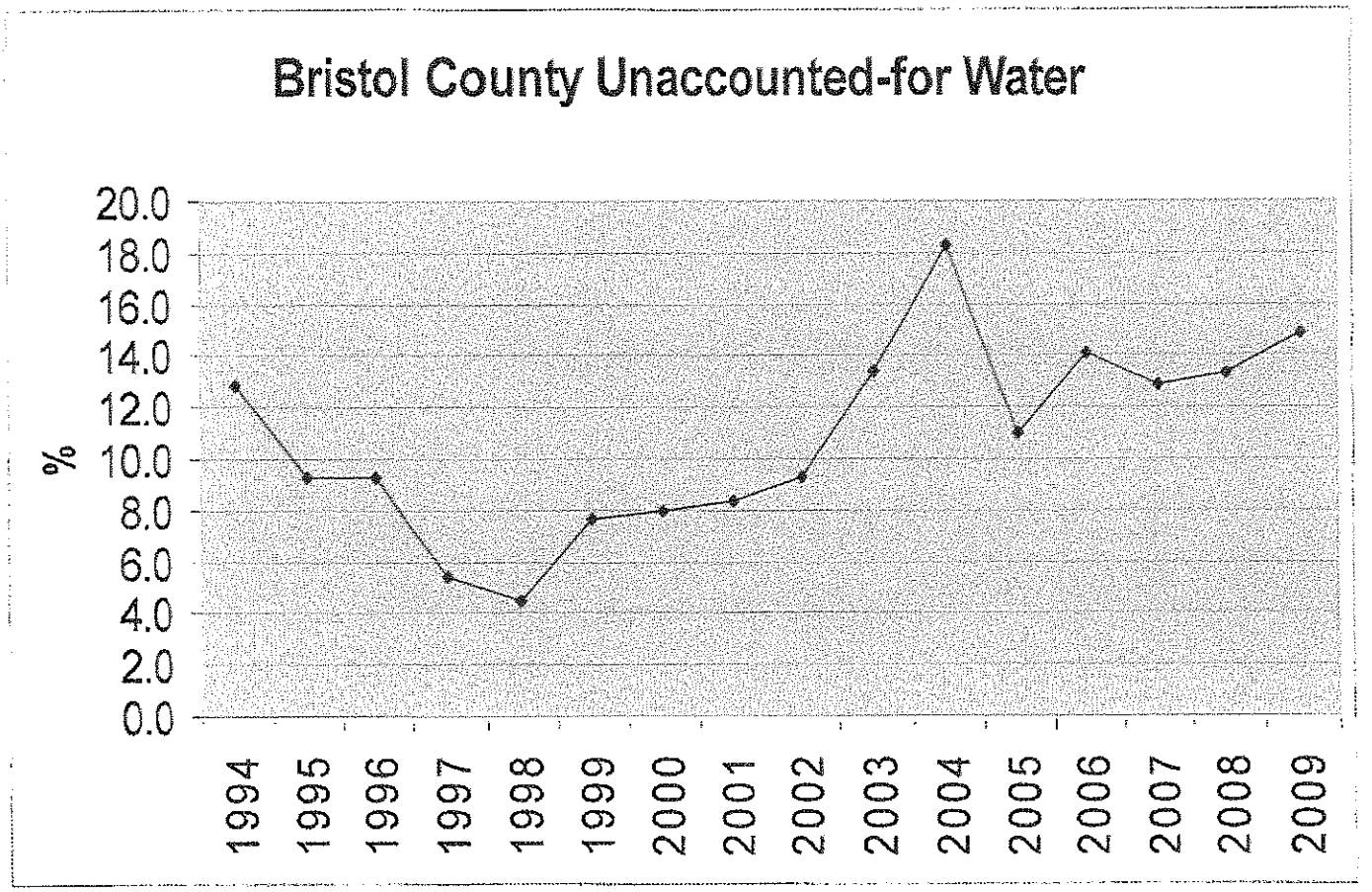
BCWA is authorized to provide water to the residents of Bristol County. BCWA has no legal obligation to provide water outside of Bristol County and has no specific legal obligation within Bristol County beyond the implied contract with each service connection.

BCWA has an existing contract with the PWSB that requires Providence to provide water to the BCWA via the East Bay Pipeline.

Non-Account Water Use

The BCWA has been aggressive in implementing programs that are designed to reduce non-account water; i.e. leak detection, meter replacement and distribution system rehabilitation. Every year, unless limited by funds, 50% of the transmission and distribution system is surveyed for leaks. All leaks that are found are promptly repaired. The BCWA intends to continue to perform leak detection surveys of 50% of the system each year.

The following diagram shows non-account water use trends since1994:



Water Conservation Program

The BCWA has also aggressively pursued water conservation programs to minimize as much as possible elevated maximum day demands. These programs, along with a water rate structure that is specifically designed to discourage inefficient uses of water, have resulted in one of the lowest, if not the lowest, per capita residential use of drinking water in the State.

Informational flyers are distributed at the Administrative office, along with home low-use water retro-fit kits.

Water Quality Protection and Management

The BCWA has completed a Water Quality Protection Plan (WQPP) in accordance with the Rhode Island Water quality Protection Act of 1987. The original plan was submitted to and approved by the RIWRB in 1989. All subsequent updates, latest submitted in 2001, are on file with RIWRB.

The WQPP includes:

- Delineation of source water protection area
- Inventory of significant potential sources of contaminants in source water protection area
- Determination of source water susceptibility
- Identification of protection strategies

The WQPP along with the policies of the State of Rhode Island, the Towns of Barrington, Bristol and Warren, RI, the State of Massachusetts, the Towns of Swansea and Rehoboth, MA, provide the basis for protection of the watershed and water supply management actions. The intent of water supply management is to prevent any significant degradation of raw water quality through protection of water shed areas.

The following are ongoing programs for protection of the watershed and recharge area:

- Management and maintenance of the land owned by the BCWA.
- Maintaining a liaison with enforcement agencies dealing with various aspects of control in watershed areas such as local police, planning, zoning and health boards, EPA and Rhode Island Department of Environmental Management, Massachusetts Department of Environmental Protection, and local conservation commissions as applicable.
- Participation in public meetings regarding planning and zoning for all land in watershed areas.
- Involvement with all federal and state agencies and all adjacent Rhode Island and Massachusetts Towns regarding any aspects of land use that may affect water quality.

The WQPP, as updated, further identifies the vulnerability of the sources of water to contamination from ongoing land uses and indicates the BCWA's utilization of the funds available from the Water Quality Protection Fund to purchase land and/or development rights and the implementation of other programs to reduce inappropriate flows to water resources. A specific example of protection of raw water quality is the use of copper sulfate in surface water sources to control algae growth.

BCWA's goal is to minimize potential deterioration of the raw water quality in the surface water and groundwater sources. The BCWA's efforts since development of the WQPP and subsequent updates are summarized in the following subsections, and were included in the 2001 WQPP and are on file with RIWRB.

Protection Strategies for Source Water Protection

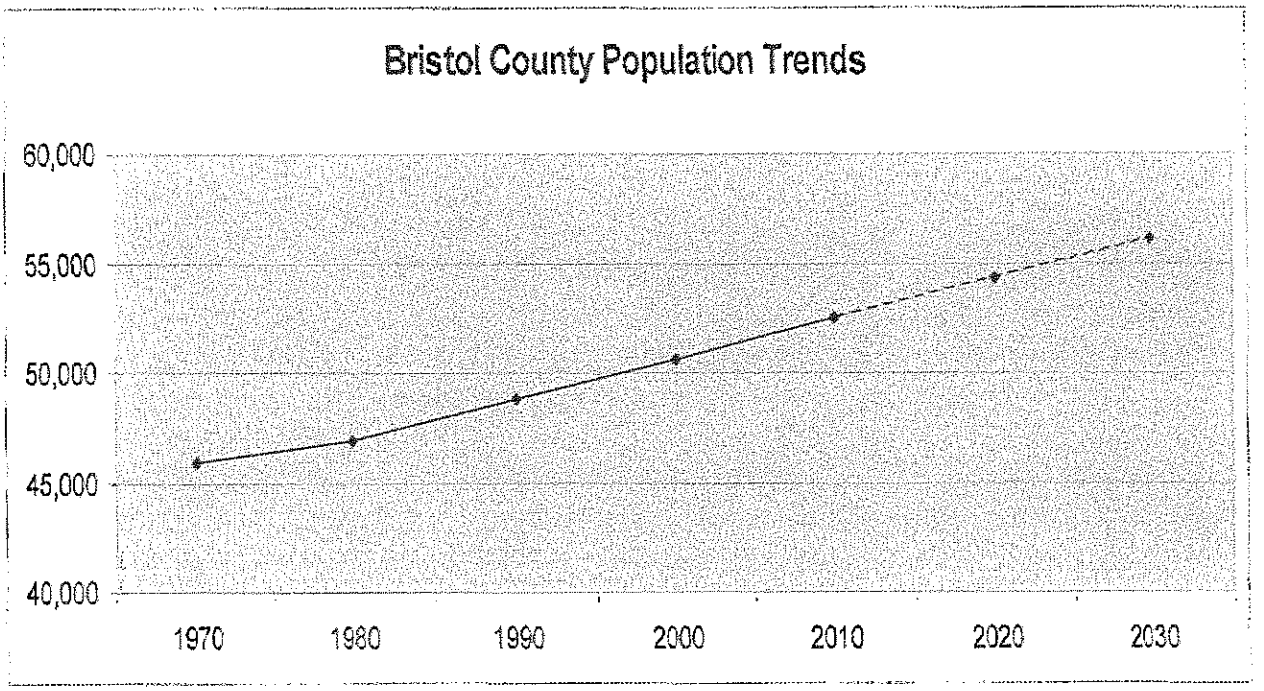
Actions to Date	
Patrolling water shed and groundwater recharge areas	BCWA personnel make daily inspection rounds of their watershed areas; this work is on-going.
Acquiring Land or Development Rights in Watershed	BCWA has identified 265+ acres of land in the surface water watersheds strategic to water quality protection. With the funding available from the Water Quality Protections programs, BCWA has purchased approximately 87 of these strategic properties. Detail information on the exact properties is on file at the RIWRB.
Regulatory protective actions	In a joint effort with Swansea, new fencing with a remote control gate was installed, which prohibits public vehicles from direct access to the property and water body of the Swansea Reservoir. Fencing has been installed around farm properties along the Kickemuit Reservoir to restrict and control access of farm animals to the water body. The Rehoboth Pump Station is BCWA's property and is fenced with locked gates. Continue to monitor activities in the Town of Barrington to insure that development of Town area over the groundwater recharge area is in accordance with best practices, in the event of future use of the Nayatt Rd. wells.
Other watershed protection activities	Construction of fish ladders at Shad Factory Reservoir and the Kickemuit Reservoir has been completed and are in full operation. The Executive Director/Chief Engineer and Assistant Engineer continue to monitor activities surrounding the Massachusetts

	watershed area and any proposed development in the area in the Towns of Swansea and Rehoboth, MA, and play an active role in Town meetings relating to existing conditions or future development.

Anticipated Future Demands

Population and Economic Development

The following diagram shows the population trends since 1970 and projects a population of approximately 54,321 by 2020 and 56,141 by 2030. Historical and current population information was obtained from the Rhode Island Statewide Planning Program's website.



The BCWA contracted with Arthur Young to complete a Water Demand Analysis, which was completed in 1986 and was based primarily on a review of historical and projected population and household trends for the BCWA system, an analysis of historical patterns in service volumes and analysis of national water utility operating data. Interviews were also conducted with various local and state officials knowledgeable of economic development patterns within the BCWA system. Results from that study are shown in the table below:

Calendar Year	Projected Use (MGD)	Actual Use (MGD)
1990	4.3	4.3
1991	4.3	4.3
1992	4.4	4.3
1993	4.6	4.6
2000	5.5	3.6
2005	3.7	3.7
2010	5.8	n/a
2020	6.0	n/a

n/a – information not available as of the publishing of this Plan.

Per Capita Water Use

All inclusive average per capita water use for calendar year 2009 was approximately 57.4 gallons per capita per day (gpcd), with an average residential per capita water use of approximately 40.8 gpcd.. This amount was determined by dividing the total water produced by 365 days. This calculates the average day demand, which then is divided by the BCWA population in 2009 to determine the water use per person per day.

The calculated value of 57.4 gpcd is a very competitive figure. This low number is a result of the BCWA's aggressive leak detection programs, an effective public education programs for water conservation, and weather patterns during that year.

Non-Potable Water

The BCWA estimates that there are approximately 500 private wells within the service area that are used for the irrigation of residential lawns. The use of these wells for irrigation reduces the peak demand on the water system. Applications for new service are routinely reviewed to determine what the water will be used for and if it's feasible to use non-potable water.

Available Water

The safe yield of the BCWA system was originally determined to be approximately 4.1 million gallons per day, which at that time included approximately 3.4 mgd from surface water sources and 0.7 mgd from ground water sources. Since that time, the wells have been inactivated, leaving BCWA with an approximate safe yield of 3.4 mgd from its surface water reservoirs.

The Child Street Water Treatment Plant (CSWTP), which is used to treat the BCWA surface water supplies, with an original design capacity of 4.0 mgd, is limited in its capacity to treat these surface waters by the fact that the Plant is in dire need of upgrading. Although the safe yield of the surface water supplies is approximately 3.4 mgd, less than the Plant original design capacity, production is limited at this time to 1.3 - 1.5 mgd. Phase II upgrade of the CSWTP is in progress, in order to bring the CSWTP up to the 3.5 mgd or higher production rates and meet all regulatory requirements.

The East Bay Pipeline was activated in 1998. BCWA draws treated water through this pipeline on a daily basis. By agreement, a maximum amount of 7.5 mgd may be withdrawn from the East Bay Pipeline.

Demand Management

The BCWA seeks to manage average demand through efficient use and efficient delivery of water by the system, efficient and accurate measurement of water consumed, by encouraging the users to efficiently use water through education and pricing and support of institutional requirements for installation of efficient water using devices. Maximum demands usually occur in the summer months and the amounts are heavily dependent upon the amount of rainfall; the more rain in the summer, less the demand. Analysis by the BCWA indicates that peak demands are almost totally due to the watering of lawns and other outside uses.

High peak demand may potentially result in limiting the ability to water lawns and other outside uses. Before the activation of the East Bay Pipeline, the BCWA has been required to institute bans on outside watering. Reduction of high residential consumption is also encouraged by the BCWA's block pricing structure.

The BCWA's methods of assuring efficient transmission and use of water in its own facilities are addressed in the System Management section of this Plan. This Demand

Management portion of the Plan will be primarily concerned with the BCWA's current and planned efforts in what is commonly referred to as "conservation".

Fee and Rate Schedules

The BCWA's rate structure is shown below (Fiscal Year 2010). The rate structure includes a service charge, based upon the size of the meter, and a consumption charge. The service charge does not include any water use. A five-step increase/decreasing/increasing block rate is charged for consumption as follows:

- First 500 CF/mo — $2.325/Hundred Cubic Feet (HCF)
- Next 1000 CF/mo — $6.569/HCF
- Next 8500 CF/mo — $5.003/HCF
- Next 20000 CF/mo — $2.325/HCF
- All over 30000 CF/mo — $3.011/HCF

BCWA's water rates do not differentiate between residential, commercial, industrial or governmental billing rates. The rate structure is such that it encourages conservation, but does not deter industrial growth .

Residential Retrofit Program

BCWA has supplied customers with approximately 2,000 retrofit kits since 1993. These kits are available for free at the Administrative Office of BCWA and BCWA technicians have them available for delivery to homes during service calls. Because residents are actively conserving water already with a very low per capita consumption as compared to other communities, BCWA has not noticed a change in consumption.

System Management

The general functions of BCWA are to collect, store and protect the quality of raw water supplies; efficiently transmit the raw water to the treatment facilities; efficiently and effectively treat the raw water so that the water quality of the treated water, at a minimum, meets all of the regulatory requirements of the Safe Drinking Water Act; efficiently distribute the treated water to the consumers and fairly proportion the costs of operations to the users.

Source of Supply Operations

The BCWA reservoirs have a capacity of 356 million gallons when full. Based on system average demands, and the surface supply safe yield, this represents approximately 70% to 80% of the County water needs, once the Plant is upgraded.

Distribution and Storage System

The BCWA operates and maintains a distribution system consisting of approximately 220 miles of transmission and distribution mains and five distribution storage tanks with a total capacity of 3.9 million gallons. The distribution system has been significantly improved since the BCWA has commenced operations upon takeover of the system from the private American Water Works Company. To date, nearly 60 miles of water mains have been replaced or rehabilitated at a cost of $18 million. Unless limited by economies, every year, a leak detection survey is performed on 50% of the water system. Beginning in 2005 equipment was purchased to enable this work to be done by BCWA trained employees. Soundings are made along main lines at 10' to 15' intervals, and direct soundings are made on gate valve, hydrants and curb stops. When leaks are

discovered, they are promptly repaired. In 2009, 65.63 miles of pipe were leak surveyed; one (1) hydrant leak was detected and promptly repaired. In 2010, 143.81 miles of pipe were leak surveyed; one major leak was detected and immediately repaired.

The BCWA will continue to implement the Capital Improvement Program to improve the Distribution and Storage Systems. Projects are in five categories:

- Transmission Improvements
- Fire Flow Improvements
- Looping and Small Main Replacement
- Storage Improvements
- Emergency Interconnections Improvements

Metering

The BCWA meters 100% of its water users. At the end of fiscal year 2010 BCWA had an installed base of 16,820 active metered accounts, reading the consumption of its customers. The meters range in size from 5/8 inch to 6 inch and are all owned by the BCWA. The BCWA maintains an active replacement/calibration program for all large meters on an annual basis and for small meters on a ten-year cycle.

Leak Detection Repair Program

The BCWA has adopted the goals established in State Guide Plan 721, which includes the goal of 15% non-account water. In fact, the BCWA is committed to maintaining a level of non-account water below 15% which potentially will allow of an additional 5% bonus in any state grant due to non-account water below 15%.

Emergency Management

The Emergency Operations Procedure Manual is on file with RIWRB. The Emergency Response Action Plan, which is being updated, will be provided to RIWRB upon completion.

BCWA does a continuous inventory of critical spare parts and performs preventative maintenance/testing on all equipment at a minimum of twice yearly. BCWA has a 24 hour, 7 day a week emergency telephone number, 401-245-5071. BCWA Personnel are also on call 24 hours a day, 7 days a week for emergencies and are required to respond within 1 hour of receiving an emergency call-out.

BCWA is also a member of the Rhode Island Water/Wastewater Agency Response Network (RIWARN), which can provide emergency back-up if needed.

Implementation

The BCWA has planned various actions to upgrade the water system that are in concurrence with the requirements of the Water Supply Management Planning Act. These actions have been organized as Supply Augmentation, Demand Management and System Management.

Capital Improvement Program

BCWA's Capital Improvement Program budget is initially set at $500,000/year, provided funds are available. This budgeted amount is in addition to the major Capital

Improvements of the Shad Factory Pipeline and the Phase II rehabilitation of the Child Street Treatment Plant, which are funded by the State.

Financial Management

Operating income and expenses include the following parameters:

Revenue

- Annual Water Rate Revenue – includes all income received from customers as service charges, water consumption fees and fire protection charges.
- General Facility Charge Revenue – Not used
- Special Assessment Revenue – Not used
- Capital Funds – Contributions and/or Grants in aid of construction projects
- Reserve Fund Revenue – Not used
- Other Earned Revenue – Interest Income
- Other Unearned Revenue – Not used

Expenses

- Debt Service on Bonds – Revenue that has been used to pay the interest on outstanding bonds for previously completed capital improvements.
- Operation and maintenance expenses – Revenue that has been used to pay:
    - Salaries and benefits
    - Materials and supplies
    - Repair and maintenance
    - Miscellaneous expense
    - Utilities
    - Administrative expenses

- Depreciation

- Purchasing water from Providence, via the East Bay Pipeline: currently the water charge for purchasing water from Providence is $1,697 per million gallons.
- Other Expenses – Loss on abandonment of distribution mains and maintenance of the East Bay Pipeline.

Billing Frequency

Currently BCWA reads meters and bills customers as follows:

- Residential accounts – Quarterly
- Small Commercial accounts – Quarterly
- Large Commercial accounts – Monthly
- Public accounts (Governmental) – Monthly & Quarterly
- Industrial accounts – Monthly & Quarterly

Bills are due when rendered and collections of the bills are actively pursued.

Coordination

The BCWA is the legal organization that has been established to provide potable water to the service area of Bristol County, which includes the Towns of Barrington, Bristol and Warren. The BCWA has reviewed the appropriate sections of each of the Towns Comprehensive Plans and has provided information to the Towns as applicable.

Letters from each of the Towns, stating BCWA coordination with local comprehensive plans will be submitted after the Towns have indicated their review of the WSSMP.

Appendix B

Vision for Bristol Public Forum Report – September 2013



Vision for Bristol

Vision for Bristol
September 19 & 25, 2013
FORUM REPORT

Forum Facilitation by: Diana Campbell
Report date: November 12, 2013

Vision for Bristol
Forum Report

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OVERVIEW OF FORUM

Purpose of this Report

This report provides a record of the participants' work during the September 19 & 25 *Vision for Bristol* forum in Bristol, Rhode Island. The report is intended to be a source of public input to the Director of Community Development and the Town of Bristol Planning Board for the 2014 Comprehensive Plan Update as required by the State of Rhode Island. In addition, this report can be used by both participants and non-participants as they support the efforts of the Town to create and implement a vision for Bristol that meets the needs of all residents.

Background

In March of 2007, there was a community forum called, *Voices for Bristol's Future*, (Voices) initiated by a small steering committee of 13 people who were seeking to bring together a broad representative group of residents of Bristol to discuss their vision for Bristol, RI in the 21st century. At the time, Bristol was facing a number of challenges, including an economic downturn and changes in the population demographics within the Town. The Voices forum was planned as a way to bring residents together to discuss what they loved about the Town and what they wanted the Town to look like for future generations. The data from that event was presented to the Town Council in May of 2007.

As a result of the enthusiasm for civic engagement generated at the Voices forum, the Town experienced a surge in volunteerism, re-energized local community groups that focused on education, the waterfront, and economic development. In addition to the many volunteers for grassroots initiatives, the Planning Board received a large number of volunteers to help with the 2010 Comprehensive Plan update. The Director of Community Development commented at the time, that the experience and qualifications of the volunteers who worked on the Comprehensive Plan update was better, by far, than hiring consultants. The volunteers were not only qualified, but because they were citizens of the Town, had a personal stake in the vision they were developing for the future of the Town.

Based on this experience, in the spring of 2013 Diane Williamson, the Director of Community Development, with the support of the Planning Board and the Town Administrator, approached *Voices for Bristol*, to request that they organize another public forum as a way to collect public input for the Town of Bristol's 2014 Comprehensive Plan update (hereinafter referred to as the "2014 Comp Plan"). The forum would be similar to the original *Voices for Bristol's Future* forum in that there would be a broad representation of the many demographics living in the Town, it would have a facilitated agenda that would allow for open sharing of idea on the future vision for the future of the Town, and it would be a springboard for the 2014 Comp Plan update process. The forum would be formatted as a two-night series in as many weeks. The information from the forum would be collected into a report to be presented to the Planning Board.

Under the direction of Diana Campbell, the chair of *Voices for Bristol* and a trained facilitator, a Steering Committee of 15 residents was formed to promote and organize the

forum, which was called, *Vision for Bristol*. The goal was to reach as many different demographics within the Town as possible. Invitations were sent to more than 100 different community organizations, Town boards, and civic groups, asking them to participate in the forum. Participants were required to attend both nights. In addition to personal invitations, the public-at-large was invited through two colorful ads in the Bristol Phoenix, a presentation at a Town Council meeting, flyers posted at the Bristol Town Hall and the public library, church bulletins, a website, information cards distributed to passers-by in front of the Post Office on a Saturday morning, and through social media outlets. Steering Committee members also used their personal networks to recruit participants from neighborhoods and demographics that are not as "tuned in" to the usual communication lines used by the Town. As a result, in less than a month more than 140 residents registered to participate in the two-night forum. An additional 20 residents expressed an interest, but could not attend due to scheduling conflicts.

The agenda for the Vision forum followed the original Voices forum, except that it was held over two nights. Seating charts were created to give the participants maximum exposure to as many different people as possible. Every effort was made to "mix up" the groups to provide a balanced discussion at each small group (table). Volunteer facilitators were recruited and trained to keep table discussions on topic, cordial, and flowing, as well as to give everyone a chance to speak and share their ideas and opinions.

Finally on September 19th & 25th, forum was held in the newly renovated lower level of St. Mary's Church and brought together more than 140 people from the community; many of whom had never met before.

OBSERVATIONS

1. Recruiting participants for the forum was an easy task. As word spread through the letters, social media, and the ads in the newspaper, registration was strong and steady through the last days (and beyond) of the registration period, which was extended to allow for last-minute registrants. All were grateful for the opportunity to participate and looked forward to sharing their ideas. Most of the registrations came from an on-line registration form located on the *Vision for Bristol* website; the others came as hard-copy forms that were downloaded from the website, included with the personal letters that were delivered to Town Boards and community organizations, or from Town Hall and the Rogers Free Library. In all more than 160 residents expressed an interest in the forum, with 140 registering.

2. The Town's demographics were well represented by the participants. The Steering Committee took extra care to monitor the registrations as they arrived. Effort was added to recruit from demographics that seemed under-represented. As a result, on the forum evaluations, many participants remarked about the variety of ages and backgrounds of the participants. All of the comments reflected that this was a positive sign that the Vision coming out of the forum was in good hands, with the elders in the room able to pass along their ideas to the younger residents. The younger residents

were enthusiastic to hear about the Bristol of the past, but through a perspective that was hopeful and forward-thinking.

3. It was clear that some of the participants were new to civic engagement and were happy to be enthusiastically welcomed into the discussions. Some representatives of the fishing industry, for example, were happy to hear that the other participants valued their contributions to the Town and wanted to make sure that they were supported in the future.

4. As was the case in the Voices forum, no one person assumed the role of expert during the event. Because agenda was facilitated but open, there was a great variety of ideas and suggestions that will be useful to the committee that will work on the 2014 Comp Plan update.

5. Unlike the Voices forum, where event participants were concerned that their elected Town officials might dismiss this work and that the Forum's results might not be used, the participants of the Vision forum knew that their ideas were going to be included in the discussions for the 2014 Comprehensive Plan update. Additionally, the participants also knew that they could, as citizens, work to bring some of the ideas to fruition on their own. This was very empowering and added an optimistic energy to the discussions as they completed the exercises throughout the forum.

RECOMMENDATIONS

1. Capacity Building: Like the Voices forum of March 2007, the room was filled with the enthusiasm to continue to be involved in the Town. A majority of the respondents to the final forum evaluations indicated that they wanted to stay involved, especially in efforts that they felt were a priority for the Town: Economic Development, Infrastructure Planning, and Education. The enthusiasm for civic engagement is very real and should be taken seriously by the Town. It is more valuable than any number of consultants that the Town could hire. The residents of the Town want to be involved in its governance and are willing to work hard to provide whatever is needed to continue the Town's successful growth toward its vision.

2. Communication: In addition to staying involved, the majority of attendees also wanted to remain informed about the process for updating the 2014 Comp Plan, as well as the implementation of some of the priorities they expressed in their vision for the Town over the next ten years. It was suggested that the Town hold additional smaller, more focused, forums in order to further explore how to implement and achieve that vision. Specifically, the participants wanted additional forums to address Economic Development and the issues facing the Fishing Industry.

3. Community Participation: Like the Voices forum, one of the activities of the Vision Forum required participants to work on their area of interest and consider how to accomplish their vision for that interest. Most of these areas of interest related directly to

sections of the 2014 Comp Plan. Many ideas and suggestions were identified, but more importantly, many enthusiastic citizens expressed a desire to continue the conversations and to work to help achieve the vision.

FORUM – PART ONE

On Thursday, September 19, 2013, a group of 140 citizens of Bristol gathered for the first evening of a 2-evening Forum, to begin an ongoing dialogue about the Town they love and their hopes and dreams for its future. The stated goals were to:

- Create a vision of Bristol in 2024
- Provide public input to the Town of Bristol's 2014 Comprehensive Plan update
- Build community energy/interest/involvement/connection

Upon signing in at the registration table, participants were directed to the first of two tables that they would be sitting at for small-group discussions. Seating plans were deliberately created that mixed up the demographics so that at each of the fourteen tables there was a diverse representation of the demographics that make up the Town's population. At each table there were teenagers, senior citizens, parents, retirees, executives, blue collar workers, stay-at-home parents, and business owners. Each table discussion was led by an experienced facilitator volunteer. There were 15 volunteer facilitators.

Community Assets

After a brief overview of the evening's agenda and a presentation on the current status of the Town, each table was asked to spend some time developing a list of the Town's assets -- what they loved about Bristol. Then from that list, they were asked to identify what they absolutely would want to make sure was still in place in the Bristol of 2024. It became clear right from the beginning that the participants were prepared to work hard. There was openness, cooperation, and an enthusiastic energy at all the tables.

The list of town assets that they came up with was long and comprehensive – some tables filled up 4 flip-chart pages! Some of the assets that the participants wanted to remain a part of Bristol in 2024 are:

- Its exemplary educational institutions, including Roger Williams University
- Cultural institutions, including museums, arts community, Mount Hope Farm, Linden Place, and Blithewold
- 4th of July celebrations
- Sense of community; friendly
- Scenic waterfront and the waterfront community
- Walk ability of the Town
- Its civic/community pride; friendliness of the citizens
- Historic architecture and preservation

- Open space, parks, Town Common, bike path
- Sense of security and safety
- Vibrant Downtown and business community

Trends & Opportunities

Once the groups had developed a sense of what they loved about the Bristol community and their priorities for what they wanted to remain a part of that community, they were asked to move to a different table. Like the first time, the seating plan were arranged to create a diverse grouping. The participants were introduced to a new facilitator and to a new group of people. In this way, participants got to share their ideas with a large number of different people, while hearing new ideas from a variety of sources.

At the second table, the participants were asked to brainstorm what they thought might be outside influences that could have an impact on the Bristol of the future – either as a detriment or as an opportunity. Examples of such influences could be the economy, climate change, or technology. This exercise was harder for the groups to do. It required that they think a bit beyond what they know and to consider global, federal, state, and local trends.

Some of the outside influences that they saw are:

- The use of Social Media to communicate
- Financial stresses as funding gets cut as federal and state levels
- Population growth/decline
- Technology
- Transitional residences of some residents
- Pensions as the baby boomers retire
- Need to attract more businesses to offset tax burden on home owners
- Infrastructure requirements, as our infrastructure needs upgrade and modernizing
- Competition from neighboring communities for economic growth
- School funding challenges
- Use of Internet for shopping and communication
- Aging population
- Fish catch limitations
- Tolls on bridges

Though the last exercise of the evening was difficult, the participants left with a sense of excitement to return a week later to continue the conversations that they started, to meet more people, and to work on their vision/ideas for the future.

FORUM – PART TWO

On the following Wednesday, September 25th, the participants were asked to sit at a (third) different table. As they entered the room, they were advised to walk around the room to review the lists of Trends & Opportunities that were identified the week before. These lists were to be used to feed into the discussions for the evening.

Ideal Future & Key Themes

Participants spent the first part of their evening turning their hopes for the future and their understanding of the unique trends and opportunities that would have an impact on that future, into their vision for Bristol's ideal future, 10 years from now. The groups were asked to brainstorm the characteristics of the ideal future for Bristol. Once their list was complete, they were asked to organize these characteristics into one-word priority descriptions or themes. These priorities became the central themes that would be expanded into an ideal vision for the future and the fed into the 2014 Comp Plan update.

The top six themes and some of the characteristics included in each theme are:

- Infrastructure/Traffic – 58 votes
  - Sidewalks
  - Traffic flow throughout Town, but especially on Rtes 136 & 114
  - Underground utilities
  - Watershed/drainage
  - Town-wide wi-fi
  - Street signs
  - Intra-town transportation, including trolley, ferry, taxis
- Economic Development – 56 votes
  - Business friendly
  - Affordable for everyone, especially senior citizens
  - Economically diverse business environment
  - Targeted economic growth
- Education – 41 votes
  - World-class school system
  - Up-to-date technology in schools
  - Connection with university for all residents
  - Strong emphasis on science & math
- Waterfront – 38 votes
  - Better planning for keeping the harbor clean & safe
  - Accessible waterfront
  - Vibrant
  - Fish cooperative
  - Responsible coastal development as an economic resource

- Environment/Natural Resources – 29 votes
  - 90% recycling rate
  - Lots of trees
  - Clean energy
  - Expansion & preservation of open space
  - Farms and fishing industries encouraged and supported
- Recreation/Entertainment – 25 votes
  - Performing arts center
  - Wellness center
  - World-class recreation center
  - Extend bike path
  - Public swimming pool
  - More entertainment options – movie theater

Other priorities identified were:

- Civic Pride / Engagement – 16 votes
- Historic Preservation – 15 votes
- Elder Care/Senior Services – 11 votes
- Shared Services – 10 votes
- Tourism – 9 votes

From Vision to Reality

For the final exercise of the evening, participants were asked to seat themselves at a table that was assigned to one of the priority themes. Participants could choose to sit at any table that held the most interest for them.

The exercise asked the participants to come up with practical strategies that could be used to achieve the Vision for their chosen theme. These strategies would be the key to the input that would be incorporated into the discussions as the Town updated the 2014 Comp Plan.

For many of the participants, this was the part of the forum that they were anticipating. There were many new and innovative ideas on how to address issues with the Town's infrastructure, how to achieve a more vibrant economy for the Town, how to improve our educational system, all while maintaining the characteristics that everyone agreed were what made Bristol such a special place. These strategies were developed from the heart from a group of citizens that truly love the Town of Bristol. They were not come to lightly, but with a lot of consideration for the implications on the Town's financial health, the security of the citizens, and the wonderful sense of community felt by all its citizens.

APPENDIX 1 - Forum Agenda

Vision for Bristol

Vision for Bristol Agenda

September 19 & 25, 2013

Your Voice Counts!

Thursday, September 19	
5:30 – 6:15	Registration, socializing & refreshments Seat self at 1st Table on nametag
6:30 – 6:50	Welcome, Purpose & Agenda Logistics
6:50 – 7:10	**Introductions:** "Getting to Know You" exercise
7:10 – 7:30	Presentation on Bristol
7:30 – 8:15	**Community Assets:** What do you love about Bristol? What about Bristol do you want to carry into the future?
8:15 – 8:30	Report out
8:30 – 8:45	Short Break - Move to 2nd Table on nametag
8:45 – 9:20	**Trends & Opportunities:** What changes and opportunities do you see that may have an impact on the future of Bristol?
9:20 – 9:30	Closing Remarks

Wednesday, September 25	
5:30 – 6:25	Check-in, socializing & refreshments Seat self at 3rd Table on nametag
6:30 – 7:20	**Ideal Future:** What characteristics do you see the ideal Bristol having in 10 years? **Key Themes:** Organize characteristics into one-word descriptions.
7:20 – 7:40	Report out on Key Themes
7:40 – 7:50	**Prioritize Key Themes:** *"dot vote"* Move to 4th Table with Key Theme that interests you
7:50 – 8:45	**From Vision to Reality:** How do we get there? Solutions & next steps
8:45 – 9:15	Report out
9:15 – 9:30	**Closing Remarks:** Diane Williamson, Director of Community Development

APPENDIX 2 - Community Assets

Table 1

- Fully Developed Harbor to include:
- Moorings, docks, commercial fishing, pump out stations,
- slips, lighting, security, maritime center, improvement of launching area.
- High Speed Ferry stop/network.
- More parking for increased visitors with good signage
- Walley School development
- Two indoor pools at new recreation center
- 100% recycling rate and curbside compost pick up
- Good sidewalks everywhere
- Underground power lines (all utilities)
- All street signs same as current ones on Hope Street
- Tablets for all students
- Extended public boardwalk
- Robin Rug developed – mixed use and hotel
- Holistic healthcare center
- Metacom becomes three lanes with sidewalks
- More hotels
- Bring back Pastime Theatre
- Finish animal shelter
- Extend bike path to the bridge

Table 2

- Improve traffic control – left turn lanes & roundabouts on Metacom
- Maintain historical integrity
- Increase/improve sidewalks
- Accessible & affordable housing
- Trees – fruit trees
- World class education system
- Vibrant waterfront
- ? (can't see top line in photo) – business & technology
- Maritime center
- More lodging
- Entertainment options/movies
- Fishing industry – oysters, etc.
- Efficient recycling program
- More organic farming

Table 5

- Affordable Continuing Education for adults (Bristol residents) at RWU in Bristol
- Make all Bristol Schools "high performing"
- Make schools up to date with technology
- Create a Community Theatre space
- Update Town Infrastructure
- Free use of Town Facilities
- Create Cable Car around east side of 136 all the way to PVD
- Update sewer system in r/l to cleanliness of harbor
- Update drinking water system so there is redundancy in the system
- Importance of excess storm water run off - not polluting our harbor (excess use of high Nitrogen fertilizer needs to be reduced by landscapers esp on lawns near the harbor)
- The need to plant rain gardens in parking lots like Walter's Town Beach
- Better overall planning for keeping the harbor clean, productive, healthy and safe.
- Bury power lines/cables
- Broaden alternative education options for those who don't fit the college mould and
- make that curriculum tied to job opportunity.
- Have resident teaching artists in schools and visiting artistic companies
- Bristol Town Choir
- Safe Walking entrance to Colt Park at night
- Bring back the Pastime Theatre
- More performing arts places downtown
- Town-wide WI-FI
- Expand Marine Training facility
- Better publicize Town assets
- Enhance use/appreciation of town's natural resources/open spaces including farming, gardening and nature education…ie. Where does a hamburger comes from.. Where does a potato comes from…More scouting and 4H needed for youth to learn basics of life. (If they don't learn to love the earth now - they will never care for or respect it.)

Table 6

- Exceptional School System
- Make Visitor Center world class
- Make Dock Facilities world class
- Make Moorings world class
- Make Maritime Center world class
- Coordinate waterfront using a hospitality approach
- Sidewalks on Ferry Road from downtown to RWU
- Put empty schools on the Common to use to generate economic opportunity
- Expand Marine Trades Education and Opportunities

- Expand Development of Vocation—Technical Schools
- Improve and expand parking downtown
- Create a Bristol Compassion Center
- Solve flooding problems esp from Tanyard Brook
- Create Pool and swimming education facilities
- Expand accommodations – Hotels
- More retail downtown
- Make Recreation Center World Class
- Farms are still farms
- Larger revenue stream from tourism
- More scheduled events thru summer (like Tanglewood - half
- Shell on Independence Park)
- Fisherman co-op market
- Robin Rug Developed
- Town to recognize tourism as important

Table 7

- Expands the arts
- Street signs – user friendly
- Community garden plots
- Improve traffic congestion
- Incorporate technology
- Higher recycling rate/expand
- Improved infrastructure
- Protection of harbor
- Attracting small business

Table 9

- Street and Basement Flooding Solved
- 90% recycling – an example for the State
- Reduction of disposable paper and plastic bags, encourage cloth bags
- Traffic issues solved
- More open space
- More targeted economic development (marine trades)
- Maintain higher level civic engagement
- Continued appreciation of past and present service people
- Maintain/preserve working waterfront
- Continued positive relationship with Roger Williams University
- Volunteer Fire Department – training and retainment of program

Table 10

- Walking, bike path, water access
- Working/launch area available to Bristolians
- More transient docks
- Infrastructure to support tourism, boutique hotel, advertising
- New technology in our industrial parks (higher)
- Vibrant upscale downtown, rebirth of Spirit of 4th of July
- Population that appreciates small town feeling
- Continuity of updated sidewalks, etc for all neighborhoods
- Small movie theater/café
- Music/arts venue – performing arts center
- Celebrate ethnic neighborhoods
- Close down once a year for families/shoppers
- More business friendly

Table 11

- Strong emphasis on math & science and core studies skills
- Intelligent industries
- Economically diverse business environment
- Breakwater in harbor
- Slow growth
- Less traffic / improved patters, more signs
- Underground utilities
- Sidewalks on 136
- Improved university / business development
- Stop growth of RWU
- Additional elderly housing / at home care
- Alternate local transportation
    - Trolley
    - Ferry
    - Taxis
- Clean harbor – bay
- Better technology in schools – keep up
    - Computers
    - ipads
    - iphones

Table 13

- Clean mandatory recycling
- Bike lanes through town
- Establish a winning Historic Preservation Pozzi Prize
- Better traffic patterns

- Keeping Bristol affordable
- University courses offered to seniors
- Fiscally sound Bristol
- Intra-city travel shuttle system
- Keep and encourage and welcome ethnic diversity
- Bristol as a destination (Ferry service to/from Bristol)
- Available and affordable elderly housing
- Responsible coastal development
- Commercial fishing pier
- Collaboration between social services
- CURRICULUM TIED TO JOB OPPORTUNITY
- Attractive to high tech industry

Table #unknown

- Wellness Center – 'aging in place' seniors staying at home
- Alternative education for K—12
- Use school buildings on the Bristol Common for support of the arts
- User friendly waterfront
- Complete development of Robin Rug
- More education and emphasis on recycling
- Retain small town civic feeling
- Development of Industrial Park as Community Center
- This is a place that new small businesses are welcome
    - ("open for small business")
- "AP" development center
- Fourth of July Museum open year round
- Shuttle service around town to support businesses
- Establish Mentorships geared toward:
    - Helping new business succeed
    - Helping existing business grow
    - Helping existing business survive
    - This involves education initiatives and citizens and government
- Bristol Business Leader Networking for Bristol (angels/get a job)
- More robust Bristol Merchants Association
- "Mine" and leverage University Technology Centers
- Bristol has the environment- People want to live here. the best.

APPENDIX 3 - Trends & Opportunities

Table 1

- Trend toward safety & security issues – weather, terrorism
- Technology changing how people work & communicate – use of public internet
- Public money shrinking
- People migrating – cities & towns
- Small towns changing revitalizing (?) trend toward over-regulation (?)
- Trend against small town manufacturing
- Internet shopping
- Larger senior population – living longer
- Innovation centers (incubators for small businesses
- Locavore movement
- Healthier living
- Vocational training/different higher ed opportunities
- On-line learning
- Lack of senior housing
- Economy is slowly improving
- Changing demographics – marry later, no kids, careers for both parents
- Kids are heavily in debt after school
- Increased cost of healthcare
- Climate change.
- Partnership is University for education and manufacturers
- Underutilized buildings – into housing (mixed) housing for senior citizens; public wi-fi Internet
- Try to attract innovative businesses /increased tax
- Garden allotments/ community gardens for growing food
- Expand bike path & board walk
- Improve electric infrastructure to prevent outages
- Help businesses recycle

Table 2

- Stole pension underfunding
- Traffic control/congestion
- Aging population/>demand for services – Aging in Place
- Technology needs of education system
- Prepare students for future workforce

- STEM
- Need for more jobs
    - Tax structure/more incentives to bring business
    - Keep/attract college grads
- Concern for rising sea level – is Bristol prepared? Flood zones/affordable insurance
- Need for long-term plan to support & expand infrastructure
- Consolidate services/save $$
- Emergency preparedness – address increase in storms, etc.

Table 3

- Social media
- Blight resulting from down turning economy
- Real estate values rising
- Decline of economic opportunities for millennials
- Keeping up with the fact pace of technology
- Community-oriented decisions
- Modernized back-to-basic (Angelinas" keeping business local - growing tourism/visitor experience
- Collaborative environment; locally & regionally
- Transitional residencies
- Residential neighborhood feels impacted by rentals & non-traditional family atmospheres
- Conscious decision making regarding visitors – investing in community
- No longer a back road – now a destination - intensity of traffic – bus stops cross walks.

Table 4

- Sakonnet River bridge tolls
- Financial stresses will get worse – increased crime levels
- Shootings – gun safety in society
- Marine industry going hi-tech
- Technology advancing faster than education can keep up withit
- Population growth/decline
- Social responsibility increasing response to reduced funding for pension
- Leverage technology advances to elp our kids
- Climate change impact on sea level rise
- Increased severity of storms
- Shell fishing
- State tax structure isn't pro-business/driving high wage earners away
- Technology enables vast opportunities

- Tourism is growing; maritime center an economic engine
- Walkability is promoted – new sidewalks/bike path/boardwalk
- Famers markets/farm to table
- Buy American
- Secularism on the rise
- Terrorism and possible targeting of 4h of July

Table 5

- Tolls on bridges: Impact – on infrastructure
- Social media: Impact – harnessing helps small businesses
- Eating/shopping locally
- Aging population Impact – continuing Bristol's history
- longer life spans: Impact – needed care for this population
- Shift in funding retirement
- State economic trouble; Impact – Jobs for residents
- Weakness of Providence
- Community competition for identity & reputation: Impact – need to make Bristol stand-out
- Tourism/destination weddings are big industry now: Impact – town needs a small boutique
- Loss of manufacturing: Impact – more business diversity needed
- Emerging technologies: Impact – take advantage of what we have the capacity to take care of already; need wired facilities; more town support for new technologies
- Focus on recycling, green climate, etc
- Shameless self-promotion – need to advertise selves better
- Slow population growth in Bristol; Improved by controlled growth
- Increased # of hair salons/nail shops: small # of empty storefronts is still too many.

Table 6

- Trade education
- Waterfront development continues
- Religious intolerance
- Infrastructure on Metacom Ave
- New $ investment & commerce growth
- Prepare for the impact of new $ investment
- Technology
- Re-use/re-purpose infrastructure (golf course)
- School funding challenges
- Maintaining the town

- Storm water management
- Adequate water service
- Being proactive to protect town assts & infrastructure (natral and man-made
- Sustainable energy
- Strategies to be self-sustaining take care of ourselves
- Sustainability of how we dispose of waste
- Shopping on the internet
- Better broadband access
- Prepare to develop or welcome hi-tech
- Mixed use focus on development of existing brownfield properties
- Aging population
- Accommodations development to support business and tourism
- How will increasing $ available be invested to benefit Bristol
- Need to promote shopping locally
- Emphasis on preserving & utilizing our farm & local products
- Need for wider local communication.

Table 7

- Technology changing way we live
- On-line retail
- Youth spend less time outside
- Rise of the "millennials"
- Lack of place for youth to hang out
- Trend towards more walk-able communities
- Less federal resources shifts burden to state and to town to taxpayers.
- Family unit under stress
- Not as much chance to know neighbors
- Frequent storm events
- People care more about the bay & water quality is improving
- Rising cost of education
- Standardization of public education
- Increasing housing production
- Houses becoming summer & "university" homes
- People retiring earlier – care needs
- Small business growth – they need spaces
- Unused spaces – Robin Rug, Wood St Industrial Park, schools on common
- Fish catch limitations
- Government regulations

Table 8

- Technology
- Communications
- Small business
- More B&Bs
- Grants
- Infrastructure
- Challenges with running small businesses
- Logistics
- Affordability
- Economic diversity
- Tolls on bridges (could this effect tourism?)
- General funds
- Revenue stream
- Telecommuting
- Sales tax on online shopping
- Able to access
- Employment opportunity

Table 9

- Climate changes - impact on the waterfront
- Technology trends – impacting education; opportunity to educate students
- Spending more than we have – funds coming from outside are less
- Fiscal responsibility as a trend – positive impact
- Our educational system is not competitive globally – impact on job opportunity
- Opportunity to focus on trades & current job opportunity
- Jobs being create are part-time – impact is under-employment
- Recreational boating increasing – impact on harbor
- Impact of the Affordable Care Act when implemented
- More young people staying with parents financially impacting households
- College costs increasing – less students can go to college; more college debt for those that do go
- Alternative energy trend & switching from oil to gas
- Trends – invasive insect species impacting trees

Table 10

- Housing market improving
- Solar/wind power
- Environmental preservation/"green"

- Creative employment opportunities
- Social media
- Tolls/future tolls
- Obamacare
- Threat of overdevelopment/roads/sidewalks/water pressure/infrastructure
- Technology
- Aging population
- Expand historic district
- Civic engagement/public services
- Vigilance
- Climate change – effect on waterfront
- Boat building industry
- RI – not small-business friendly; government/financing
- Robin Rug building development
- Buying local
- Community pride
- Fuel prices/global economy

Table 11

- Increased traffic
- Aging population
- Changing business environment
- Increase in small business/opportunities/incubator businesses
- Technology – mobile communication- wi-fi availability town wide
- Global economy – compete with the world
- Increase in tourism
- Increase in racial diversity
- Increase in harbor traffic – leisure boats – transient
- Attractive to young families & retirees
- Instant access to knowledge
- Downward pressures on wages
- Changing family household structure – single parents w children
- Shopping on-line – no bug box
- Education standards being lowered
- Increase in HS graduations & college population
- Increase in college degree
- Increase in vocational training opportunity
- Increase in veteran population – needed services

Table 13

- Environment:
  - global warming – water level & storms
  - climatic change
- Technology
  - kid-focused activities
  - sense of community
- Aging infrastructure
  - new sources of energy & power
  - financial impact on town to provide services
  - roadways & bridges
- Improving Economy
  - responsible planning & development
  - traffic control – Metacom corrider
  - over-development – strains resources change community
- Alternative transportation
  - ferry, train – Providence and Newport
- Need to get a handle on
  - Potable water – alternate sources
  - Separating storm drains from sewer lines

Table 14

Trends	Opportunities
Climate: • super storms • Evacuation • decline in fish/overfishing • rising sea level	funding for projects i.e. Town Beach
Increased tourism	Impact on neighborhoods – increased traffic
Returning veterans	Strain community
Lack of funding for infrastructure	Economy – tax base, jobs
Terrorism – waterfront parade	Economy improving gradually
Economy – tax base, jobs	Ethnic changes
Rising taxes	Technology – social media, smart phones
Insular services – psychological effect (stress)	Community picking up
Funding for arts, music	Active aging population
Longevity requires services	Back to basics; improve education
Job market needs improvement	Sustainable energy – solar, hydro; wind
Ineffective national government	Efficiency – green technology
Technology: changes to keep up,	Farmers markets

internet safety	
Energy & environmental impact	Fishing
Transportation	
$healthcare	
Trade deficit	
Obesity	

APPENDIX 4 - Ideal Future, Key Themes & Priorities

Key Theme Priorities

- Infrastructure/Traffic – 58 votes
- Economic Development – 56 votes
- Education – 41 votes
- Waterfront – 38 votes
- Environment/Natural Resources – 29 votes
- Recreation/Entertainment – 25 votes
- Civic Pride / Engagement – 16 votes
- Historic Preservation – 15 votes
- Elder Care/Senior Services – 11 votes
- Shared Services – 10 votes
- Tourism – 9 votes

Infrastructure – Traffic – 58 votes (traffic separate)

- Street signs – user friendly
- Quieter, less traffic; Town enforce noise laws
- Improve water delivery – water pressure
- Sidewalks throughout Bristol
- Fix drainage
- Watershed – improved
- Underground utility lines
- Good sidewalks everywhere
- All street signs same as current ones on Hope St
- Sidewalks
- Connect all attractions
- Flooding problem has been solved
- Improved/expanded parking in downtown
- Sidewalk on Ferry Rd – town to RWU
- Refreshed infrastructure
- Buried power lines
- Metacom improvements
- Dependable electricity
- Underground utilities
- Municipal wireless network – free wi-fi
- Sidewalks & crosswalks

- Street & basement flooding solved
- Update town infrastructure to have technology
- Improve infrastructure
- Community gardens
- Improved traffic flow – roundabouts, left-turn lanes
- Accessible & affordable housing
- Improve & maintain sidewalks
- Stormwater management in relation to cleanliness of harbor
- Upgrade sewers & water systems (Bristol needs water redundancy)
- Bury power lines & cables
- Update sewer/water infrastructure
- Town-wide free wi-fi
- Cable car around East Bay to PVD to Warren to Town centers

Traffic

- Improve traffic congestion
- Metacom becomes 3 lanes with sidewalks
- More parking (for increased visitors) with good signage
- Restore bus route to Metacom
- Traffic issues solved!
- Better traffic patterns
- Light rail/ferry to/from Providence and Newport
- Improved traffic flow
- Better planning for keeping harbor clean & safe
- Slow traffic speed
- Parking
- Less traffic – improved patterns, more signs
- Slow growth
- Sidewalks on Rt 136
- Alternative local transportation – trolley, ferry, taxis
- Crosswalks
- Intercity travel i.e. shuttle system, etc.
- Bike lanes throughout the Town (not just a bike path)
- Decrease Metacom Ave traffic

Economic Development – 56 votes

- More business friendly
- Attract small business
- Artisans

- Economically diverse business environment
- Improved university/business interaction
- Intelligent industries
- Technology office space
- High technology jobs—infrastructure; industrial parks; vocational training
- Employment – more business friendly
- Locavore food movement
- Robin Rug redeveloped
- Compassion center – medical marijuana
- Stability
- Holistic healthcare center
- More hotels
- Complete development of Robin Rug
- Incubator/ "AP" development center
- Further development of Industrial Park as community center
- More targeted economic development
- More retail establishments in downtown
- Jobs: marine training – we have this
- Small business thriving
- Affordable for elders
- Schools on common are in use and productive
- Known for supporting locally-owned business

<u>Education – 41 votes</u>

- Improved education
- Broader alternative educational options
- Residence teaching artists in schools
- All high-performing schools in Bristol
- Up-to-date technology at schools
- Affordable continuing education at RWU
- First-rate education system
- Tablets for all students
- Incorporate technology
- Expansion of marine industry trades with education
- Exceptional school system
- Vocational/technical school in B/W
- Slow/stop growth of RWU
- Alternative education for K-12
- RWU Connection – 2 dots

- Continued positive relationship with RWU
- Affordable educational programs for town residents at RWU

Waterfront – 38 votes

- Fisherman/shell fishermen cooperative
- Adequate moorings in harbor
- Coordinated marine hospitality – Herreshoff Marina, Bristol Marine, & Harbormaster
- Waterfront visitors' center
- Waterfront recreational and working
- Protect harbor
- Commercial fishing pier
- Accessible waterfront
- Boater service guide (Explore Bristol)
- Clean water (Bayshore)
- Resident parking to access
- Ferry service
- Keep working waterfront
- Working waterfront
- Breakwater in harbor
- User friendly waterfront
- Maintain working waterfront
- Clean harbor & bay
- Vibrant waterfront
- Fully developed harbor – docks & moorings; commercial fishing space; pump-out; security; maritime center; launching area
- Fully developed Robin rug use & hotel
- Extended public boardwalk
- Armory to become maritime center
- Fisheries – aquaculture
- More & better docking in harbor/waterfront

Environment – Natural Resources – 29 votes

- Reduction in disposable paper & plastic – encourage cloth bags
- 90% recycling – an example for the state
- Efficient recycling
- Responsible coastal development – sustainable; promote conservation
- Clean – mandatory recycling
- Trees & fruit trees
- Community gardening – schools/education

- 100% recycling rate – curbside compost pick-up
- Clean energy – renewable
- More open space
- Expansion & preservation of open space
- Emphasis on recycling
- Farms are still farms

Entertainment/Recreation – 25 votes

- Performing art center – art & music
- Open mic/stage location for local performers
- Movie cinema – generates recreation & new jobs for youth
- Support and advancement of the arts
- Half shell for musical performances at Independence Park
- Expand theater arts
- Original school buildings on common to support the arts
- More entertainment options – movie theater
- Conservation – preserving what we have
- Enhance use/appreciation for small parks & big.
- Live stock & gardening & open space
- Home building
- Swimming facilities for competition & education
- Local residents get priority access to infrastructure, i.e. beach, moorings, etc.
- Wellness center
- World class recreation center
- Swimming pool
- Walley School development
- Public swimming pool
- 2 indoor pools & new rec center
- Bring back Pastime Theatre
- Extend bike path – connect Hope St to Metacom Ave
- Bike sharing program
- Community theater space
- Movie theater
- More performing arts places to go w/ restaurants
- Free use of town facilities
- Residency with artists, dancers, actors, sculptors
- Resident teaching artists in schools
- Bristol Town Choir
- Safe walking entrance to Colt Park

- Movies in the park for families; you bring picnic; free movie
- Cyclovia – street fair/closing of street for walking, bicycles, skates, etc. allows for great community green event AND promotes business for local shops/restaurants
- Activities for 25-38 year olds

Civic Pride and Engagement – 15 votes
- Retain small town/civic feeling
- Rebirth of community spirit – volunteerism
- Wood St
- Increase number of volunteer firemen
- Reach out to military families
- Proper medical clinic
- Better publicize town assets
- Marine job training
- More volunteerism within the community
- Maintain high level of civic engagement
- Volunteer fire department – train & retain
- Celebrate our diverse ethnic neighborhoods
- Continued appreciation for past & present service people (veterans)
- Continue appreciation for our commercial fishing industry

Historic Preservation – 15 votes
- Maintain historical integrity of the town
- Lombard Pozzi Prize for preservation
- Preserve historical structures
- Maintain historic small town character

Senior/Elderly Services – 11 votes
- Keeping Bristol affordable for senior citizens
- Additional elderly housing and home care
- Seniors staying at home
- Affordable elderly housing

Shared Services – 10 votes
- Finished animal center
- Community TV channel/radio station
- Open town government – accountability, transparency, senior population
- Collaborating with social services
- Fiscally sound Bristol – property taxes and funded pensions

- 10 years from now we want Bristol to be less reliant on home owners property tax by having successful businesses

Tourism – 9 votes

- 10 years from now Bristol will be know for fine foods & sustainable gardens (Mount Hope Farm)
- Bristol 4th of July Museum
- Public transportation
- Thriving downtown
- Accommodations
- More lodging
- Bristol as a destination
- Trolley service
- More hotels
- Larger town revenue stream from tourism
- Lots of events for public – like Tanglewood

APPENDIX 5 – From Vision to Reality

Strategies to achieve the Vision

Infrastructure/Traffic

- Move forward with Metacom Avenue traffic plan – previously studied (approved?)
- Motivate more people to take public transportation
    - Highlight "Park-n-Rides" that are available
    - More public parking to use busses
- Improve the ability of cars to pass busses during stops
- Traffic Czar on Town Council
- Expand the reach of the Tanyard Brook project
- Disconnect sewer lines from storm water system – accelerate this work
- Move forward with existing sidewalk plan on Rt 114 to extend into Warren. Extend south to Mt. Hope Bridge
- Add sidewalks to Metacom Ave.
- Future development should have all buried utility lines requirement
- Study cost of burying utilities – raise money to accomplish
- Bring train into Bristol from Providence, using Bike Path or Metacom Ave.
    - Make it a monorail
    - Use cable car corridor on East Side of Metacom for cable car to Providence to spur people into downtown
- Reinstitute ferry transportation
- Spur private investment in infrastructure projects – portion of town fees earmarked
- Seek grants to develop safe walking routes to schools
- Move forward with Metacom Ave plan
- Sidewalks everywhere
- Storm water abatement
- Wi-fi – total coverage throughout the Town
- Alternative energy: solar, thermal, wind
- Improve water pressure
- Better long-range planning
    - Communication with utility companies
- Dependable electric services
    - Buried power lines
- Sidewalks

- Refreshed infrastructure
- Municipal wireless network
- Cross walks
- Parking
- Traffic – slow down the speed limit

Jitney – transportation

Economic Development/Tourism

- Work to create a set of situation where business owners would say, "Of course I am starting my business in Bristol!"
- Economic Development "leaders" work to determine what Bristol needs
- Need to sell Bristol – what does Bristol have that owners need? Workforce, living, social, educational, etc.
- Continue success of Explore Bristol in conjunction with Newport & Providence
- More hotels
- Plan for Robin Rug – accommodations?
- Improve parking and signage
- Preserve historic nature of the Town
- More concerts and events
- Town needs music shell
- Encourage & promote waterfront activities for visitors
    - Harbor cruises
    - Visit a fishing boat
    - Commercial fishing experience
    - Coordinate visitors from the ship

Continue to closely work with Town on Visitors' experiences

Waterfront

- Develop a boater services guide
- Clean water, bay, and shore
- Resident accessibility
- Parking
- Ferry service
- Working waterfront
- Ensure all moorings are documented
- Work with RWU & Explore Bristol to ensure a vibrant & strong aquaculture
    - Involve the fishermen
    - Conferences on aquaculture, fishing, etc
    - Education
    - Leverage maritime center
- Create "Bristol Waterfront" museum
- Commercial shell/fin fisherman co-op
    - Water-to-table market
    - Rockwell Park?
- "Fisherman's Festival"
    - Blessing of the Fleet
- Expand transient docks (moorings, too), include dinghy
- Strategic Plan
    - Visitor friendly
        - Launch service
        - Transient slips
        - Dinghy docks
        - Promotion
        - Parking
        - Deep water access
        - Loading zone
        - Ferry service
        - More slips
        - Handicap accessibility
    - Mix of commercial & recreation expansion
        - Comparable facilities
        - Separate commercial from recreation
        - Development & access of the east side of Bristol
        - Robin Rug?
    - Infrastructure expansion
    - Avoid over development – consider environmental issues

- Accessibility of water & land

Education

- World class school system
- RWU to be involved in town technology research development
- Better technology in schools – computers/iPads/iPhones – keeping up
- Strong emphasis on math & science programs; English & social studies
- University courses for high school seniors
- Curriculum tied to job opportunities

Environment & Natural Resources

- Mandatory recycling – making Bristol #1 in the state
- Take it or leave it @ Recycling Center
- Educate & engage youth in environmental appreciation through school/town sponsored programs
- Curbside composting for food waste
- Storm water utility district – to mitigate pollution
- Develop storm water mitigation opportunities & implement them
- Community gardens – gardens at the schools
- Fruit trees on Town property – edible landscapes
- Renewable energy – solar farm at the dump
- Conversion to LEDs
- Actively support environmental organization like Save Bristol Harbor, Save the Bay, and others

APPENDIX 6 -Evaluation Results

The purpose of the Vision for Bristol forum was to give the community an opportunity to have a voice in the future of the Town and to provide input to the 2014 Comprehensive Plan update. Please give us feedback on how effective you felt the Vision forum was in achieving those goals. Thank you.

How would you rate the following statements?

RESULTS	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
Agenda: The agenda flow was helpful in bringing participants from the present to a future vision of the Town.	50 – 59%	34 – 40%		
Organization: I felt that the forum was organized in a way that provided me with ample opportunity to share my ideas and opinions.	58 – 72%	23 – 28%		
Facilitation: The facilitators were very helpful in guiding the table conversations, giving everyone a chance to speak.	57 – 71%	21 – 26%	1 - .01%	
Outcome: I feel that the priorities identified at the forum accurately match where I feel the Town needs to focus looking forward to the next ten (10) years.	36 – 46%	41 – 52%	1 - .01%	

What I valued most about this forum:

- Input of many great ideas
- It was great getting to hear the opinions of other Bristolians
- Free discussion of personal/community topics
- Creativity, openness, & genuine concern toward positive improvement
- Having the opportunity to hear from others about issues I'm passionate about
- Broad range of ideas, people & backgrounds
- The ability to hear ideas and express opinions/ideas
- Positive aspects about Bristol
- Hearing other opinions
- Being able to hear ideas from others and being able to voice my thoughts

- The interaction between everyone
- Cross table interaction/ diverse population (not racial, however)
- Anyone could register and participate in the discussion
- Hearing the points of view of others
- Meeting new people; interacting with others; getting my thoughts out; hearing other people's ideas and forming new ones of my own
- Meeting all different types of people from all walks of life and sharing ideas and dreams
- Meeting new people of my town
- Open discussion
- Great ideas; very informative
- Ideas from a diverse group
- Meeting people and ideas
- Variety of people
- Being able to be a part of the vision
- Getting together with other residents to discuss Bristol's future
- A partnership created for council & townspeople
- Complete group participation
- Willingness to work together for the best town possible
- Time well spent & well organized
- Interaction with other Bristol citizens
- Consensus from large group
- The wide range of ages, gender & professions brough a lot of different view points and values
- To be a part of this very important community project as we think about the present and future of our town
- Diversity of opinions
- Ideas generated; meeting participants
- Community collaboration & participation
- Understanding that the future is different from Bristol is fabulous past. Change needs to happen on some accounts
- Sharing ideas & discussing as a group the most important ideals of people in Bristol
- A great variety of residents with many great ideas
- Community spirit; quality of attendees
- A chance to be a part of the community; meet people gain knowledge about my community
- It was interesting to realize that many people shared the same views for Bristol
- Diversity of opinions/background of participants
- The opportunity to speak my thoughts & feeling about my vision of Bristol
- Being able to express my ideas and opinions, hearing others' ideas
- So many attendees! So great!!
- The sense of pur community and civic involvement
- Collaborative work; meeting people
- Clarification of issues
- Ideas shared; meeting many people in the community; identifying priorities

- I valued the friendly, positive spirit of all the participants
- Community input
- Being able to hear a variety of points of view
- The feeling that everyone there truly wants Bristol to be the best pleace to live, work, play & raise a family
- The opportunity to be heard & to meet more community members
- Interaction with a broad range of concerned citizens; working together for the final goal of a better Bristol
- Keeping Bristol the jewel of RI
- Listening to everyone's ideas, influences, outlooks, etc.
- Bringing together such a large number of civic-minded people; prioritizing future improvements
- Civic participation
- The exchange of information; very interesting and informative
- The feeling of community: people taking timeout of their nights to come and contribute
- Diversity; honesty
- Meeting people and hearing concerns
- Meeting neighbors & others in the community
- The last group – how we can make our vision for 10 years happen
- Ability to openly express the feelings, interst of the community
- Meeting new people
- Free exchange of ideas
- The opportunity to share thoughts with fellow town citizens
- The connection everyone shared
- Seeing so many varied people come out to be involved in this forum
- Listening to other people's ideas
- That we all got to voice our ideas…

What follow-up I would like to see occur:

- Where our ideas have gone and what has happened to achieve these ideas
- Some of these ideas implemented
- I would like to see these things implemented
- Action on some of the key elements
- Focus on priorities pointed out by the vision forum and communicating to citizens on progress as made
- More incentives for bringing top shelf entertainment to Bristol
- Update on the movement or outcome of programs that were discussed
- Revisit our vision & make sure our ideas are passed along to the people to make them happen
- A report that is given to the community development department and available publically
- Updates on progress
- 2 year review
- Information gathered shared with the public via newspaper, website

- That this effort leads to better implementation of the comprehensive plan
- Action on the priorities determined at the tables!
- Educational support to our K-3 program especially
- More positive change
- I understand meeting like this are once every 10 years. I'd suggest much more regularly, if that be true
- I would like to see what is presented to the Town Council/Administration and then see what is decided
- Break into working groups (only people who truly want to be there)
- Create task forces on topics to come up with more details of the top ideas
- Synopsis of points in written form sent digitally
- More meetings – email contact follow-up on what continues to happen – progress
- Economic development plan (realistic)
- Publicize major areas to be worked out in updated comprehensive plan
- Continued open public forums – open forum for business owners
- Follow up & revisit options & discuss topics regarding my interests
- Opportunity to work towards achieving some of our great suggestions
- Notification of ideas from the forum that are implemented
- Continues meetings – notification of updates re: the process
- Do some of the suggestions recommended
- To make these happen
- Some of these proposals & ideas become a reality; senior housing & veterans affairs & traffic control (Metacom area)
- More voice to younger (mid 20's-mid 30's and teens) A plan for the future – less discussion of the past
- Execution of ideas
- Summarize top suggestions of major themes
- How the collected ideas progress
- Perhaps a follow=up email with points that were a direct result of the VFB that made it into the comprehensive plan
- Task forces – Waterfront Task Force
- Summary document circulated to all participants
- Expand senior housing availability
- Action steps to actualize the goals set forth here
- Invite us all back to see the draft
- A final "proposal" to be presented to the Town Council with our priorities
- To know what will be adopted from the forum
- Another get together to hear decisions on our input
- A smaller group to help prepare comp plan
- Transition ideas to reality continue this sort of forum
- Feedback on feasibility of ideas
- Town officials and people working together better
- It would be nice to have comp plan facilitators talk to the commercial & recreation users of the water to get more specific plans for the downtown waterfront

- Written summary of outcomes; focus groups around key issues (last exercise) with council/committee chairs
- Participants invited to work directly on comprehensive plan
- First draft of plan/public input & response community-wide vetting process, etc
- That the important issues (the top on all tables) get accomplished
- Communicate back
- Two-year evaluation of proposed projects
- Every 3712 months updates
- Publish and email night 1&2 data
- Action plan as to what's next
- A continued & solid effort to continue our road to making Bristol all that it deserves to be
- Attempt to choose over this decade three areas: eg recycling, alternative energies, etc
- Love to see what the final plan ends up looking like
- Many of these ideas, concerns and suggestions pushed forward for the Comprehensive Plan

What I would like to help with:

- If you send out updates & requests, then I may be able to assist
- I would observe and follow specific guidelines for above
- Economic Development
- Involved wherever I can
- Economic Development/Business Development
- Planning & design & supervision
- How our local library can facilitate closure of the "digital divide" across the entire town esp for adults
- Planning and waterfront
- Forum with commercial & recreation users of the water
- Town beautification
- Muni wi-fi coverage of the Town
- Anything I can
- Economic development or infrastructure committees
- I can be flexible
- Action steps
- Advocacy
- Whatever is needed, especially other volunteer/civic engagement opportunities
- Open to help however I can. I'm a graphic designer by trade, but enjoy working with my hands & getting people informed, excited & involved in projects
- Tourism (associated with Linden Place)
- Everything
- Environmental future; library- mobile book truck; elderly/special needs volunteerism; recycling; public gardens & students
- Veterans affairs; town infrastructure
- Civic pride & engagement
- Planning opportunities

- Planning
- Civic engagement; environment
- Civic pride & engagement
- Future vision for Bristol
- Education alternative – we need a way around common core; it's too tough for our kids & misses the point of what kids need
- Strategic plan
- Economic development
- Anything with arts & education
- Street signs – more user friendly
- Education – strengthening k-3 students skills to increase outcomes
- Metacom Avenue traffic improvement plan
- Veterans affairs
- Education & parks & recreation
- Creative thoughts, design etc. that's my specialty
- Organization of entertainment group
- I am all ready fully involved in activities – Community Strings Project
- Getting sidewalks put in all over greater Bristol – not just downtown. Make Bristol Walkable
- Everything & anything

APPENDIX 7 – Steering Committee

Diana Campbell, Chair

Bob Aldrich

Linda Arruda

David Barboza

Samantha Faria

Lindsay Green

Barbara Healy

Susan Maloney

Tony Morettini

Terri Moreira

Berta Raposo

Steven Roth

APPENDIX 8 - Table Facilitators

Bob Aldrich

David Barboza

Jennifer Cavallaro

Henry DiPietro

Susan Donovan

Craig Evans

James Lavender

Jane Lavender

Terri Moreira

Lisa Milich

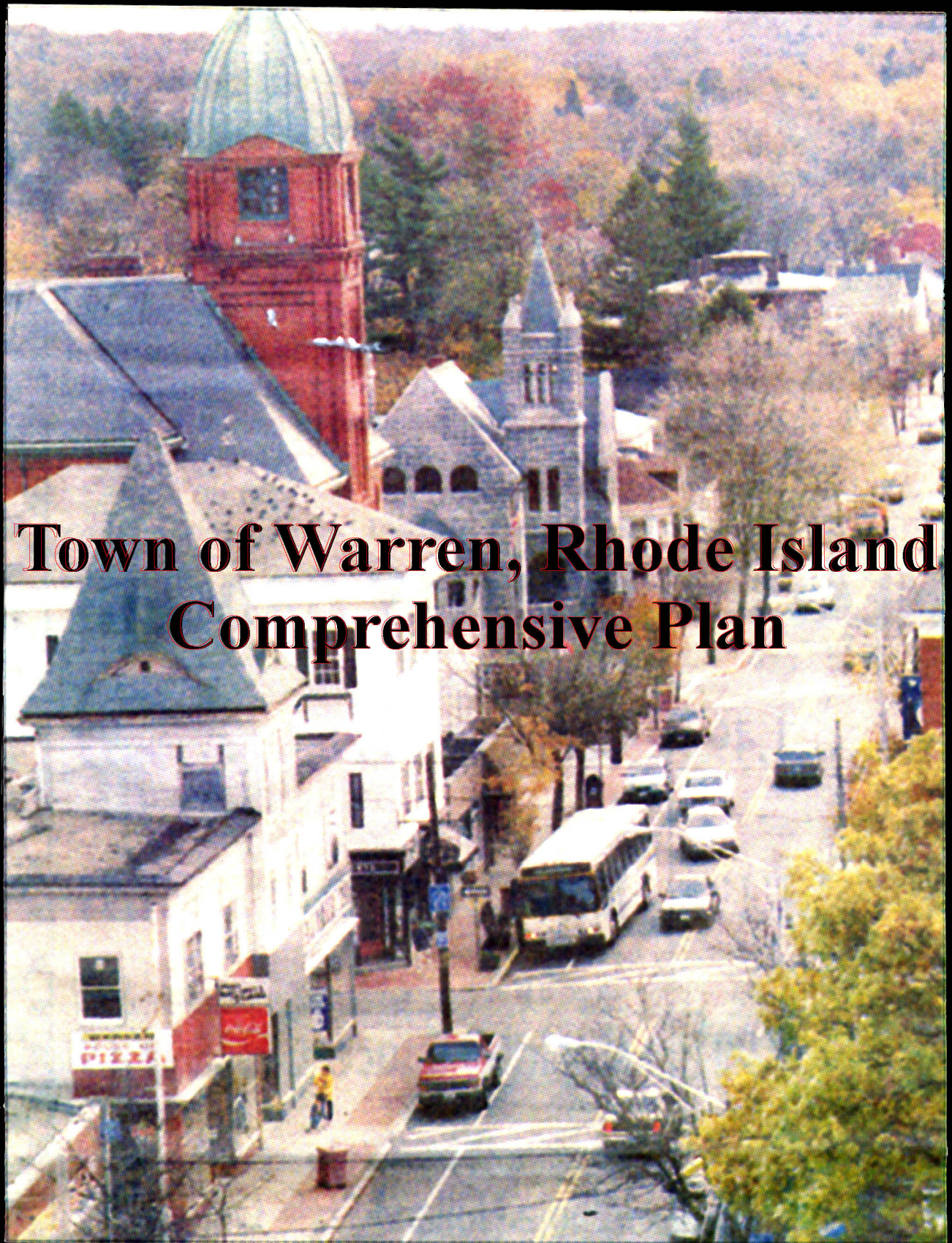
Lynn Moran

Marjorie McBride

Tony Morettini

Fran O'Donnell

Adam Ramos



Town of Warren, Rhode Island
Comprehensive Plan



TOWN OF WARREN, RI
COMPREHENSIVE PLAN

Originally completed
1991

Approved by the Warren Planning Board
And
Warren Town Council
Spring 1992

Adopted

_____

Rita Galinelli, Town Clerk

Presented To
Rhode Island Statewide Planning
For Final Approval
As Amended Through July 2003

WARREN COMPREHENSIVE PLAN
INTRODUCTION

INTRODUCTION

GENERAL COMMENTS

The Warren Comprehensive Plan is the culmination of field work, discussions with town committees and individuals, and review of past reports and plans. It is the synthesis of critical ideas formulated by the consultants based on the ideas, observations and aspirations of the Planning Board and townspeople. The plan has been prepared in accordance with Chapter 45-22.2 of the General Laws of Rhode Island, the Rhode Island Comprehensive Planning and land use Regulation Act.

This document identifies and examines Warren's planning needs as it charts its future over the next several years, establishing a framework for more specific actions. The format reflects State-mandated categories and criteria, while the focus is on Warren's potentials, problems and challenges for the future. The contents of this plan are subject to periodic amendments.

PLAN COMPONENTS

The Warren Comprehensive Plan is broken down into Elements, each containing a descriptive Inventory and Analysis of conditions and needs, and then proceeds to set Policies accompanied by recommendation Actions. At the end of each Element is an Implementation Schedule. The plan elements are as follows:

Natural and Cultural Resources

This element describes the ways man and nature have shaped Warren and analyzes how balance can be sustained between nature, history and contemporary needs. Issues of town character and image are emphasized.

Land Use

This element analyzes the distribution of land uses and focuses on the special mixed-use character of Warren. It suggests more refined land use techniques to address special development needs and growth management this once industrial town shifts to other dominate uses.

Recreation, Conservation and Open Space

This element provides an overview of the diverse public and private open space holdings and recreational facilities that provide active and passive recreation opportunities for Warren's residents. It stresses the need to more effectively reveal the farmlands and scenic identify of Warren. This Recreation, Conservation and Open Space Plan (1990) and its amendment (1995) serve as the Inventory and Analysis of this element and is the basis of its policies and actions.

Circulation

This element discusses highway and local traffic conditions and problems, bike paths and specific locations where improvements are needed.

Services and Facilities

This element inventories and analyzes the serves and facilities provided by the Town and other agencies. It prescribes general capital improvements which will be needed over the next several year and discusses the functions and needs of local government.

Economic Development

This element examines the physical and employment characteristics of a changing economy, which is primarily tied to regional patters but encourages local initiatives, capitalizing on special development opportunities and the town's historic fabric.

Housing

This element inventories the diverse types of housing found in Warren. It stresses the provision of affordable housing and suggests strategies for sustaining a diverse housing stock.

Implementation Program

Each of the elements listed above contains a section describing the implementation of policies and actions. Boards, commissions, agencies and private groups are targeted to carry out individual actions. Priority or relative immediacy of compliance with the plan's polices is roughly indicated by the order in which they appear in each element and has been given a time frame of completion, ranging from the present time to twenty (20) years. The Warren Comprehensive Plan authorizes the creation of a town-wide Capital Improvement Plan that emphasizes the priorities and spirit of the Comprehensive Plan. In accordance with Rhode Island General Law, changes to zoning and other ordinances that are necessary to achieve the goals policies and actions herein must be implemented with 18 months of approval of this plan by the State.

Plan Formulation and Citizen Participation

The Warren Comprehensive Plan process was initiated by a town administered public opinion poll in 1990. Upon review of the survey a series of events, including the formation of comprehensive plan committees, and the hiring of consultants led to the first draft of the Warren Comprehensive Plan. This plan, adopted by the Town Council in 1991, was forwarded to the State for review and acceptance. Because of deficiencies identified by the State, the plan was returned to the town for further review and amendments. The revision process was propelled by the hiring of a new consultant firm, and the hiring of a permanent Town Planner. In 2004 the final revisions were forwarded to the State of Rhode Island Office of Statewide Planning for review and approval.

The Public Opinion Survey

The survey was distributed to a cross-section of Warren residents through a variety of local organizations, including several churches and schools, The 143 respondents were well distributed across all age groups, interest groups and neighborhoods. Features that respondents found most attractive about Warren were its "small town character," "historic character," and "family or personal

ties." Receiving most negative ratings were "shopping opportunities, the tax rate and the schools.

Given the choices to promote, limit, and stay the same, respondents strongly promoted the following: historic restoration; public transportation; recreational facilities; open space acquisition. Residential development in general, and development of Touisset in particular, registered strong "limit" ratings. Commercial and industrial activity received moderate "promote" ratings.

Activities and services considered particularly important by respondents were child care and a teen center. Senior day care, and boat ramp/town pier, a town cultural center and the bike path were seen as important as well. The survey showed support for added taxation that would benefit schools, and to a lesser extent, infrastructure and recreational facilities.

Responses to other survey questions bear out the following composite: parking conditions are seen as poor to adequate; townspeople view Warren as a residential town; growth controls are favored with strong support for stringent environmental controls, open space requirements, and limits on building permits; the water supply is seen as having problems, specifically regarding drinking water taste and management of the watershed; and strong support is given for expansion of the school curriculum to include more education in natural resources, history , job opportunities and government.

Comprehensive Plan Committees

In order to further involve residents of warren in the Comprehensive Plan process, committees were organized by the Planning Board to address each of the Plan Elements. These committees were open to the public and consisted of interested citizens, civic officials and Planning Board members. Each committee initiated inventory and discussion relevant to its element.

Consultants

In August 1990, Everett Associates, Inc. was contracted to prepare the Warren Comprehensive Plan. Their initial efforts consisted mainly of meeting with the Planning Board and committees, and fieldwork pertinent to understanding and analyzing physical and cultural aspects of the Town.

A preamble report was prepared early in the plan process, and building on this report Plan Elements were prepared, subject to numerous additions and modifications. In the course of addressing each element, relevant and interested department heads, organizations and individuals were interviewed and their input recorded. Throughout the process the planning board acted as the town's procedural contact with the consultants, meeting with them on a regular basis. These meetings were open to the public.

Upon completion, the Warren Comprehensive Plan was approved by the Planning Board and forwarded to the Town Council for adoption. After adoption in 1991, the Comprehensive Plan was presented to the State for review. Initial review revealed deficiencies.

The plan was returned to the Town of review and amendment. At that time, the Planning Board contracted with consultant Brenda Dilman, who was charged with addressing the State's concern and making all pertinent amendments to satisfy the State. In 2002 the Town hired a full-time Town Planner who became responsible for the remaining necessary revisions. In 2004 the plan received approval by the State and was re-adopted by the Town Council.

Future Uses Related to the Comprehensive Plan

The value of a comprehensive plan lies in the broad parameters set forth. This provides a workable context for specific implementation. Chief among necessary actions resulting from this plan are the review and revision of the Zoning Ordinance and Subdivision Regulations. It is hoped that the Town will also undertake special development initiatives to encourage reinvestment within a framework that places a premium on preserving and enhancing Warren's heritage.

Adoption and State Approval

Several steps are required for full adoption and approval of the Comprehensive Plan. First, a public hearing was held by the Planning Board, at which the Comprehensive Plan was presented and comments heard. Subsequently, the Planning Board approved the plan. Likewise, a public hearing was held prior to Town Council approval. Finally, State approval, administered by the Statewide Planning Division of the Rhode Island Department of Administration, follows review. This review is conducted to insure compliance with provisions of Rhode Island General Laws and regulatory documents from all state agencies.

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The Plan has been prepared under the administration of the Town Council. The following former and present Town Councilors participated in the adoption of the Comprehensive Plan:

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William Estrella, Jr.
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Christopher Stanley
Joseph DePasquale
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Townspeople who have served on the Comprehensive Plan Committees have provided speical insights into Warren's conditions and problems. The committees and their members included:

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Clifford Sampson
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CIRCULATION
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Town officials and department heads who were important to the initial plan development and subsequent revisions include:

William Hanley, Building Official
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WARREN COMPREHENSIVE PLAN
NATURAL AND CULTURAL RESOURCES

September 2001

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I. INTRODUCTION

Analysis of the natural and cultural characteristics of Warren leads to awareness of how the water has shaped the land and set very specific limits and boundaries for the Town's growth in the past and in the future. The settlement pattern initially set urban uses well apart from rural or agrarian ones. Over the decades and centuries, however, this distinct separateness blurred as differing land uses merged or were overlaid by new development patterns. Warren is very vulnerable to change. In order to direct its own future it must be willing to implement land protection and economic development strategies that retain working farms, open space and historic resources, while aggressively reshaping those parts of the Town and related uses that need improvement.

The Natural and Cultural Resources Element of the Comprehensive Plan includes an inventory of the Town's significant natural, cultural and historic resources; a discussion of their importance, ways in which they are threatened and policies and strategies for their protection. These policies are created with an understanding that growth will continue and that growth management and resource protection are necessary to ensure both the economic and environmental health of Warren. A healthy economy requires a healthy ecology.

This element forms the environmental base of the comprehensive plan and is closely related to the Open Space and Recreation and the Land Use elements of the plan.

A. OVERALL GOALS

To offer residents of Warren a high quality of life through the preservation and best use of natural, historic and cultural resources.

To maintain and reinforce Warren's small town character, emphasizing its natural setting and maritime, agricultural and industrial history as manifested in the continuing presence of wharves and harbors; extensive farmland; concentrations of historic houses; historic street patterns; and historic mills and mill-related buildings.

II. INVENTORY AND DISCUSSION

A. NATURAL CONDITIONS

This section, using maps and associated discussion, summarizes Warren's natural environment including its geography, geology, ground and surface waters, water quality, soils, agricultural land, wetlands and coastal resources. The benefits and constraints of these resources as they relate to community development are also discussed.

Geography

The geography and natural systems of Warren are well defined and have strongly influenced settlement patterns. Though small in area, Warren has approximately 16 miles of coastline along the Palmer, Warren and Kickemuit rivers, and Narragansett and Mount Hope bays. The Kickemuit River has had a major influence on settlement and land use and separates several

sections of the Town from each other. Like many communities on Narragansett Bay, Warren is made up of landforms that extend southward into the Bay.

Warren's topography ranges from sea level to approximately 90 feet. This is typical of the drowned valley characteristics of the Narragansett Bay region. The bay and rivers have sculpted a land area of low ridges generally running north to south, separated by open water or lowlands that are characterized by high water tables and wetlands, generally unsuitable for development. Although erosion control is always an important consideration, steep slopes do not present a major development constraint. Slopes greater than eight percent characterize approximately 135 acres, 3.7 percent of Warren's soils. Substantial acreage however is constrained by the lack of slope. This together with overall low elevation leaves them vulnerable to periodic flooding and persistently poor drainage.

Bedrock and Surficial Geology

Bedrock and surficial geology describes the skeletal framework of the land and affects the distribution of soil types, surface hydrology and the location and amount of groundwater. Figure 1 depicts Warren's geology. Warren is part of the 102 square mile Narragansett Basin, composed of coal age (Pennsylvania Period) sedimentary rocks including conglomerate, sandstone, shale, and coal. Warren has a few bedrock outcrops mostly located to the east of Metacom Avenue and between Metacom Avenue and Main Street. Visible bedrock is evidence of the powerful scouring effect of the glaciers. Bedrock types include Scituate granite gneiss (sgf) Hope Valley alaskite (hva) and mafic dikes and sills. Mafic is a dark color igneous rock rich in magnesium and iron. Dikes and sills are rocks, which when in the molten condition, filled in either fissures (dike) or between layers (sill) of older rocks.

Surficial deposits are sandwiched between the bedrock and the soils and consist either of till or outwash. Till is an unsorted mixture of boulders cobble, gravel and sand deposited directly by glacial ice and is often characterized by an impermeable or restrictive layer. Outwash is a well-sorted deposit carried by glacial melt water. Groundwater is generally more abundant in outwash than in till. Other deposits not of glacial origin include those deposits by waves, rivers or wind.

Warren is in the Narragansett Till Plains, which make up the area immediately around Narragansett Bay. This area is covered by glacial till composed of sedimentary rock, shale, sandstone, conglomerate, and, in a few places, coal. The till is generally compacted to a color ranging from dark gray to olive and is finer in texture than till derived from granite. Most of the landforms have been smoothed by glacial action. Till deposits in Warren (1,666 acres) are primarily located, to the west of Market Street north of School House Road, in a band along Birchswamp Road and Metacom Avenue and throughout much of the eastern portion of the town. (Figure 1). Outwash deposits (2,279 acres) are located in the vicinity of Touisset Point and throughout much of the western portion of the Town.

Soils

The RI Soil Survey provides comprehensive soil mapping and classification. It describes the physical and chemical characteristics of particular soils and assigns soils to a hydrological group. It also discusses the constraints and benefits of each soil type relative to such things as

construction, septic system functioning, natural resource and agricultural management. Figure 2 depicts those soils that are either highly permeable (1,158 acres) or highly erodible (1,000 acres), and those soils that are characterized by restrictive layers (1,450) and severely high watertables (1,781). Many soils are in more than one of these categories. It is interesting to note that the restrictive soils correspond will the till deposits depicted in Figure 1.

The majority of Warren's soils (66%) present severe constraints for onsite sewage treatment systems. These soils are either slowly permeable or have high watertables or both and generally run in bands from the north to the south. In addition another 620 acres (17%) are characterized by excessive permeability. Excessively permeable soils include those soils with percolation rates of 5 minutes per inch or faster. These outwash soils have sandy or gravelly sub soils and due to the rapid percolation may inadequately treat septic system effluent. This is particularly true of nitrates, which in excess cause eutrophication of estuarine waters and present a health threat to drinking water. Septic systems in these soils may require special design in order to prevent groundwater contamination and reduce nitrates.

Warren would benefit from an onsite wastewater management plan (OWMP) given that soils with severe septic system constraints and those with excessive permeability comprise 83% of the Town's soils. Once approved by RIDEM, an OWMP would enable residents of Warren to access 4% loan funds for septic system repairs. In highly developed areas, sewer systems are sometimes necessary because the density of development or immediate soil conditions preclude use of individual septic systems. Sewers have been necessary west of the Kickemuit, south of Belcher Cove and out along developed roads to the north. The remaining land continues in agricultural use. Extension of sewers into the western portion of Warren would facilitate suburban sprawl and is contrary to the comprehensive plan objectives of preserving Warren's environment and its agricultural and rural components.

Seventeen percent (630 acres) of soils are classified as urban. These soils vary in character and are located in the more built-up sections of Town. In addition to the urban soils ten acres have been classified as "du" (dump) and another 70 acres as beach.

Agricultural Soils

Much of Warren consists of prime and secondary farmland soils (Figure 3). Some of this productive land has been built upon, especially in the more urban western portion of the Town. Extensive areas still register on the Soil Conservation Services (SCS) Important Farmlands map. These lands are primarily in the Touisset Point area, but a band down the center of the western area and extending into Bristol and out to the Kickemuit River is also designated as important farmland. Developed intensively, this area is effectively non-productive. Most of the agricultural land is located in the western portion of Warren and along the reservoir. Farms and nurseries in the Touisset area correspond with the soil designations.

There are currently about 795 acres of farmland in Warren, which represents 20% of Warren's total area. About half the land is pasture and about half is cropland. Of this amount 202 acres are protected from development but the remainder is not. Figure 10 of the Land Use Element demonstrates that most of the potentially developable land in Warren is agricultural. In fact

farmland accounts for 594 acres (61%) of Warren's 978 acres of developable land.[1]

Since 1980 about 400 acres have been developed, representing a loss of 33 percent. At this alarming rate, there will be no farmland in Warren by the year 2030. Preserving these farms is key to retaining Warrens rural character and its ties to its agrarian past. In addition, keeping land in active agriculture instead of houses has a positive impact on the Town's tax base. Areas with prime farmland soils should be retained either as active farms or land banked for resumed farming when the need arises.

In addition to purchasing developing rights, farming should be encouraged through tax incentives and farm-friendly zoning regulations. Residential development that occurs in agricultural areas should be designed to protect as much agricultural land as possible. As an alternative to conventional subdivisions small-scale developments or family compounds with reduced road standards, flexible zoning and a decrease in allowable density should be required.[2] In addition to this element, the landuse and economic development elements of the comprehensive plan emphasize the importance of preserving Warren's working farms.

Freshwater and Coastal Wetlands

Nature has set very definite limits to the types of development that can occur in Warren. In addition to flooding, the proximity of water presents coastal constraints governed by law and monitored by the CRMC, the Army Corps of Engineers and other regulatory agencies. Extensive inland water bodies and wetlands have related constraints and are protected to some degree by the RI Wetlands Act. The Town, however, should consider the cumulative impact of small changes on wetlands in the review of development proposals.

Figure 4 depicts Warren's sub-watersheds, wetlands, and flood zones. The five principal drainage areas are the Kickemuit River, Mount Hope Bay, Narragansett Bay, Palmer River and Warren River. When developing water quality protection strategies, the characteristics of the basin and the receiving waters should be taken into account.

According to the RIGIS database Warren has 954.01 acres of wetlands. [3] Of these 622.11 acres are freshwater and under the jurisdiction of RIDEM and the remaining 331.9 are coastal and under the jurisdiction of CRMC. Forested swamp and salt marsh are the two most prevalent wetland types. Table 1 depicts a more detailed classification of Warren's wetland acreage.

The town has many freshwater resources including wetlands, ponds, streams and the Kickemuit reservoir. Forty acres of Warren's wetlands are classified as either lakes or ponds and 257 acres as salt marsh. Much of the remaining acres are deciduous forested or shrub wetlands that often follow streams running north to south. Some of these stream systems, particularly in agricultural areas support emergent wetlands (marshes).

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[1] For additional information concerning the buildout analysis see Land Use Element.

[2] For sample design guidelines see a) *Rural Design Manual*, 1998. Newport Collaborative Architects, for RIDEM. b) *Town of South Kingstown, Residential Design Manual*, 1999. Dodson Associates, and Bobrowski, Mark and Teitz Andrew, July 2001. c) *South Kingstown Planning Assistance Guide*, August 2001. (South County Design Manual and Model Land Use Ordinances,) www.state.ri.us/dem/programs/bpoladm/suswshed/sctpap.htm

[3] RI Geographic Information System. Wetlands 1988 data set

TABLE 1 Wetland Acreage, Warren RI

Wetland Type	Jurisdiction	#of Parcels	Acres
Forested deciduous (forested swamp)	RIDEM	76	371
Scrub shrub (shrub swamp)	RIDEM	55	108.04
Emergent marsh/meadow	RIDEM	59	72.14
Lacustrine open water (lake)	RIDEM	1	31.03
Palustrine open water (ponds)	RIDEM	22	8.99
Estuarine emergent (salt marsh)	CRMC	27	257.28
Riverine tidal open water	CRMC	170	50.99
Marine/estuarine unconsolidated shore	CRMC	12	19.29
Estuarine open water	CRMC	5	4.34
TOTAL		427	954.01

There are three large wetland systems of statewide importance: the wetlands north of the reservoir, preserved as Green Acres; east of Long Lane along the Massachusetts border; and behind the Hugh Cole Recreation Park. These wetlands provide important habitats for flora and fauna, erosion and flood controls, pollution buffers and scenic resources. The location of wetlands within the more built-up sections of Town helps to explain why so many sub-neighborhoods are separated from adjacent development and why certain lands are not built upon. In some cases, wetlands have been so encroached upon that their natural condition is severely compromised. In extreme cases, such as in the center of Town between Child Street and the Bristol line, encroachment has all but obliterated original wetland conditions.

Warren is blessed with a good harbor and many saltwater wetlands. Hundreds of acres of salt marshes lie along the Warren, Palmer and Kickemuit rivers; they are among the state's most valuable coastal features. In addition to their scenic value, they are productive nursery areas for fish and shellfish, provide habitat for important flora and fauna, and serve as nutrient traps and buffers against storms and floods.

The Warren River has approximately 2.5 miles of saltwater coastline featuring a half-mile stretch of natural and manmade beaches and almost a mile of wetlands around Hanley's Point and Little Island. It abuts the downtown Waterfront Historic District, where stone wharves dating from the eighteenth and nineteenth century are still used today. Besides its obvious historic and scenic significance, the waterfront concentrates pollution from commercial and industrial sources, potentially making it easier to monitor and control. Little Island serves as a permanent wildlife refuge, pollution buffer and scenic resource in this busy harbor.

The Palmer River has roughly four miles of coastline, made up entirely of saltwater wetlands. RIDEM has designated 760 acres of these wetlands as top priority for protection and has classified the area SA, the highest environmental quality rating. CRMC has similarly categorized the area Type 1 (conservation area). Figure 5 depicts coastal water quality and CRMC use designations. In addition to providing scenic beauty, both the Palmer and the Kickemuit Rivers provide valuable fish, plant and wildlife habitats; offer year-round active and passive recreation; help control flooding, erosion and pollution; and accommodate fin and shell fishing.

Along the Kickemuit River there are approximately five miles of saltwater coastline, of which about 80% is wetland and 20% natural beach. The most outstanding feature is Chace Cove, which was the summer camp of Massasoit and the Wampanoags. Over 60 acres around the cove have been donated to the Rhode Island Audubon Society for permanent protection. This river is rated SA by the DEM and Type 2(low intensity use) by the CRMC. The upper Kickemuit River and the Kickemuit Reservoir have approximately 3 miles of freshwater shoreline, along which 50% is pasture, 30% forest and 20% residential. The reservoir's watershed extends well inland, particularly on the eastern/southeastern side. Features along the banks of the upper river and the reservoir include five working farms, Warren's oldest cemetery, several historic homes, numerous archaeological sites, and Green Acres Heritage Park.

About one and a half miles of the Warren coastline along Touisset Point is natural beach abutting Mount Hope Bay. The area offers good swimming and fishing opportunities. Behind the beach are bluffs 30 feet high with spectacular views. Unfortunately, the bluffs are eroding at the rate of 2 to 5 feet per decade, posing a threat to the homes built here. Along Hanley's Point there is a stretch of natural beach about a half-mile long that faces Narragansett Bay. On the inland side of the beach is a 60-acre wetland of state importance. A DEM right-of-way extending from the bike path to the shore provides scenic views of the historic harbor, wetlands and the bay.

Warren's coastal water quality standards, developed by DEM in accordance with the federal Clean Water Act and state laws, "provide water quality for the protection and propagation of fish, shellfish and wildlife, and for recreation in and on the water; take into consideration their use and value as public water supplies; and take into consideration their use for aquaculture, industrial and other purposes including navigation." [4]

The table below summarizes the State's coastal water quality designations. The entire Kickemuit River is classified as SA along with the Palmer River. The Warren River is classified as SB and SC with a mixture of CRMC use designations that range from conservation (1) to commercial and recreational harbors (5).

TABLE 2 Saltwater Water Quality Designations

SA	SB	SC
❖ Bathing and contact recreation ❖ Shellfishing for human consumption ❖ Fish and wildlife habitat	❖ Shellfishing for human consumption after depuration ❖ Bathing and other primary contact recreation ❖ Fish and wildlife habitat	❖ Boating and other secondary contact recreation ❖ Fish and wildlife habitat ❖ Good aesthetic value

Water Quality and TMDL Plans[5]

Warren should work in concert with all other towns fronting the Bay to improve overall water quality. This can be accomplished by eliminating remaining point sources of pollution and the

[4] Harbor Management Plan, Town of Warren, 1990 page 10

[5] Section on TMDL's adapted from RIDEM's TMDL website www.state.ri.us/dem/programs/benviron/water/quality/rest/index.htm

installing adequate storm sewers to eliminate periodic discharges into the Bay. The Town must monitor pollution and recreational activity in accordance with state water quality classifications. Local benefits include improved fin and shell fishing, increased swimming opportunities, and greater attractiveness to potential tourists and business opportunities.

More insidious perhaps are sources of nonpoint pollution. These include such things as septic system effluent and stormwater runoff, which can contain everything from pet wastes and fertilizers to petroleum products. The implementation of an onsite wastewater management district and the use of structural and non-structural best management practices (BMP's) for buffer enhancement and runoff improvement should be implemented.

A total maximum daily load (TMDL) is a term that refers to a detailed plan to restore water quality to a waterbody that does not meet State water quality standards and is listed as an impaired water on the State's 303(d) list of impaired waters. States must take into account seasonal variations and must include a margin of safety to account for uncertainty in the modeling and monitoring process. A TMDL reflects the total pollutant loading of the impairing substance a waterbody can receive and still meet water quality standards. TMDL Plans are currently being developed for the Palmer River for pathogens and nutrients and ~~foe~~ *for* the Kickemuit Reservoir for nutrients and bacteria.

Palmer River TMDL
The estuarine waters of the Palmer River lie in Rhode Island, but 90% of its watershed lies in Massachusetts. The Palmer River fecal coliform sources are from areas in Massachusetts and from two streams that flow into Belcher Cove. The sources in Massachusetts have been linked to agricultural operations, which are improving their management practices with the help of the Massachusetts Division of Food and Agriculture. The sources in the streams flowing into Belcher Cove are varied and include dog waste, storm water runoff, wildlife and agricultural operations. Measures are being put in place to reduce the fecal coliform sources in Belcher Cove. More detail can be found in the Palmer River fecal coliform TMDL.

The Palmer River also has high levels of nutrients loads, which affect reduce water quality by increasing algal growth and reducing dissolved oxygen levels, a condition referred to as hypoxia. The Palmer River is listed on the state's 303d List of Impaired Waters for nutrients and hypoxia. Nutrients increase the growth of phytoplankton and macroalgae which shade beneficial submerged aquatic vegetation. The excess growth of these organisms causes an increased use of oxygen during the night and early morning hours when the plants respire. Oxygen in the water column is also depleted when these organisms decay and the nutrients are then released back into the water column. This kind of decreased water quality condition is called eutrophication, and results in a decrease in the population size and diversity of animals and plants including eelgrass in the area. Eelgrass, a submerged aquatic plant, provides an excellent nursery ground for fish and shellfish. The Palmer River was once filled with eelgrass, but over the past century, the eelgrass it in the Palmer River has disappeared completely.

Kickemuit TMDL
RIDEM is currently in the process of preparing a Total Maximum Daily Load (TMDL) plan for the Kickemuit, which serves as a drinking water supply for the Bristol County Water Authority.

EPA has provided extensive staff resources as well as $50,000 in consultant services to monitor and model water quality in the watershed. Since most of the watershed lies in Massachusetts, RIDEM, is also involving state and local officials in Massachusetts in this restoration effort.

Implementing TMDLs
After EPA and the State have approved a TMDL, the town should examine its zoning and subdivision regulations and investigate other means such as public education and onsite wastewater management to help meet the standards of the plans. Non-point source controls may be established by implementing Best Management Practices (BMPs) through voluntary or mandatory programs for enforcement, technical and financial assistance, training and education, and demonstration projects. RIDEM evaluates the effectiveness of TMDLs using the following strategies; monitoring pollutant loadings, tracking implementation and effectiveness of controls, Assess water quality trends in the waterbody, and reevaluate TMDL for attainment of water quality standards.

Water Supply
Surface Water (Kickemuit Reservoir)
Figure 6 depicts the boundaries and classification of Warren's ground and surface water resources. In addition to water from the Scituate Reservoir transported through the cross bay pipeline, water is supplied by the Bristol County Water Authority (BCWA), which acquired the utility from the Bristol County Water Company in 1986. Locally, water is drawn from four reservoirs, the Kickemuit in Warren and three others in Swansea and Rehoboth. The Kickemuit Reservoir and nearby land is also an important local wildlife area.

The watershed of the Kickemuit Reservoir, including its acreage in adjacent communities, totals 3,310 acres. The Town adopted a watershed protection overlay district as part of its 1997 zoning amendments. The overlay district prohibits certain harmful uses within the watershed, establishes development standards for new subdivisions and requires site plan review for most uses within the watershed.

Even with the construction of the cross bay pipeline, the Kickemuit Reservoir must continue to meet current and future water supply needs. Furthermore, and more specific to this Element, the scenic natural habitat, open space, and recreational potential of the reservoir and its watershed should be protected and retained as a major inland facility for passive uses including fishing, picnicking, hiking and nature study. However, top priority use of the reservoir should be as a water supply.

Groundwater
Groundwater is water that lies beneath the surface of the ground and saturates the soil. This flowing water is usually located a predictable distance below the surface but has seasonal highs and lows. Although there are no significant aquifers in Warren, groundwater will continue to be an important water supply source outside of the water service area. In addition to the surface water reservoirs, water supply also comes from two wells in Barrington.

Most of the town's groundwater is classified as GA. The recharge area for the well at Touisset Point is classified as GAA. In addition there is a large area of degraded water quality (GB) in the

center of Town and several smaller areas of GA non-attainment. In order to preserve Warren's groundwater for future use protection measures such as the adoption of an onsite wastewater management plan should be implemented.

Flood Zones

Figure 4 depicts in a general sense the 100 year flood zone and the wave velocity zones in Warren. The Federal Insurance Rate Map (FIRM) on which this figure is based is the legal document for determining flood zone location and may be viewed at town hall. Flooding is primarily limited to tidal surges caused by hurricanes. As a hurricane travels in its usual north to northeast direction, the counterclockwise wind circulation around the low-pressure center results in strong winds from all directions. Thus a hurricane passing near the Narragansett Bay area can create tidal surges along any shoreline where there is sufficient "fetch" length.

Located in the upper part of Narragansett Bay, Warren experiences high surge elevations due to the funneling effect the Bay has on severe cyclone storms passing by the area. Flooding from such surges occurred during the 1938 hurricane and again during Hurricane Carol in 1954. The 1938 hurricane, which was comparable to a 100-year flood, generated flood elevations of approximately 14 feet in Warren. Elevations from Hurricane Carol were about 13 feet. Locally, the effects of both storms were extensive, damaging properties along the Warren and Kickemuit rivers, Mount Hope Bay and Belcher Cove, as well as contaminating the Kickemuit Reservoir when water from the Kickemuit River poured over the Child Street Dam.

Zoning regulations and building codes for special flood hazard areas (A, V and V-30 Zones) conform to Federal Emergency Management Agency (FEMA) development standards. Many communities have developed hazard mitigation plans to address the impact of natural disasters such as flooding.

Vegetation and Forest Resources

Figure 7 depicts upland wooded and shrub areas by cover type and notes rare species areas. Figure 1 of the Landuse Element, depicts landuse and land cover in greater detail. Most of the remaining undeveloped land in Warren is wetland (900+- acres), farmland (795 acres), forested areas (406 acres) and brushland 30 acres. Eighty percent of the upland forests are deciduous, 2 percent are coniferous and 18 percent are mixed.[6] A greenway corridor extends from Palmer River to Touisset Point. Figure 10 of the Land Use Element depicts potentially developable land by cover type.

Rare, Threatened and Endangered Species

Warren has a number of ecologically significant natural communities and is home to several rare species (Figure 7). The Palmer River in particular provides critical habitat for rare species. The salt marsh along its shores is recognized as a high quality wetland, providing habitat for several rare species. Wetlands along northern parts of the river support the Northern Diamond Back Terrapin, osprey and several uncommon plants. A small area of critical habitat is also located in Touisset Point in the vicinity of Chase Cove. Other significant habitats in Warren include the power line/pipeline right-of-way, where species depend on open habitat and regular mowing and

[6] A forest with greater than 80% deciduous trees is considered deciduous, greater than 80 percent coniferous is classified as coniferous. Fifty to eighty percent deciduous or coniferous is classified as mixed.

the wooded upland to the west of the right-of-way. Threats to these habitats include improper maintenance of right-of-ways, the spread of phragmites along the pipeline, dumping of household waste in the adjacent woodland, and potential development of the upland border of the marsh.

Air Quality

Warren's air quality is affected by the quality of air throughout the region. Clean, dry, high quality air arrives with fronts from Canada but must compete with moist air from the south and west that is often polluted by the New York/Washington D.C. urban corridor and the industrial Midwest. It is this air that has been recognized as the primary cause of acid rain affecting lakes and trees in the northeast, as well as posing a threat to pregnant women and persons with respiratory problems.

Sources of high-level air pollution in Warren are few but nonetheless threaten residents' health. One source is the buildup of carbon monoxide fumes from dense automobile traffic statewide that can create unhealthy conditions. In addition, local industries are known to emit noxious fumes.

In accordance with guidelines provided by the RIDEM Division of Forest Environment, the Town should consider implementation of development requirements pertaining to vegetation and lot coverage. In addition to improving the appearance and traffic circulation of development, these guidelines can help cleanse the air and mitigate the "heat island effect. While Warren and its residents can have little effect on regional air quality, local industry can be monitored for emissions violations.

Hazardous Materials

The Town should maintain specific plans for addressing the issue of hazardous materials in the workplace and on its roads. Ideally this should be embodied in a local Hazardous Materials Plan. The Town's emergency management operations include provisions for hazardous materials mitigation (see also Services and Facilities Element, Emergency Management).

B. HISTORIC AND CULTURAL RESOURCES

Historic Development Sequence

As in many small, older towns, residents of Warren tend to maintain an affinity for the past. Figure 8 Cultural and Historic Resources identifies scenic areas, candidates for National Historic Register, Historic District, historic sites and archeological sites. The historic resources of Warren are documented in the Rhode Island Historic Preservation Commission's (RIHPC) survey Warren, RI. Statewide Preservation Survey B-W-1 and this plan ~~incorporates~~ *recognizes* that document ~~by reference~~ *as an inventory*. The presence of water is the primary reason Warren was initially chosen as an appropriate settlement site. Water edges contain and isolate sectors of Town and separate coastal, harbor-related lands from those defined by the Kickemuit and the land north of Belcher Cove.

Like most towns, Warren has grown in definable spurts. These include the following: Native American settlement along the coast and rivers; early European settlement of farms and the

initial village; mercantile development and prosperity based on foreign sea trade; industrial-based growth and construction of worker housing; and, lastly, the current period of transition from industry.

Each past period established a pattern that reflected the dominant uses and conventions of development common to that time. The relatively impermanent Native American settlements (at least in contrast to more recent building practices) persist only as archaeological sites. Early settlement, fishing, boat building and mercantile trade established the street pattern within the Water Street/Main Street area from the Palmer River south. This period also contributed the small lot and house common to the seventeenth century and early eighteenth century. The outlying area was developed as farms, a pattern that is still evident today.

With the introduction of the mill and other forms of industry, the economic order changed. The need for an extensive work force resulted in a different scale and form of development that was no longer, oriented towards the water. This type of development was still concentrated primarily in the southwestern part of Town but expanded towards the east. Large industrial and civic buildings and worker housing characterize this period.

Industry dominated Warren's identity until the gradual reduction of industrial activity in recent decades and the introduction of several experiments in economic diversification--primarily manifested along Market Street and Metacom Avenue. This period of transition persists with no clear new order emerging. The effects of the many new industrial, commercial and service uses have blurred the identity of the main routes into and through Town. Suburban housing has in-filled the southwestern sector of Town.

Remnants of earlier periods, however, still have a positive influence on Town character. The old railroad tracks have become a well-designed and popular bike path. The street pattern in the older sections of Town persists, as do many of the farms--at least their fields and some of their buildings. The past provides an historical context that must be respected and should serve as a major determinant in the future development of Warren.

Historic Resources

Besides many significant historic buildings covering a wide range of periods and styles, Warren has a National Register Historic District, two other historic districts, historic and archaeological sites, and a rich, albeit fragmented, historic context. Of the three districts described below, only the waterfront historic area is currently an official historic district. In 1975, the Rhode Island Historic Preservation Commission recommended the other two areas as well.

Warren Waterfront Historic District

The largest and most important historic area in Warren is bounded on the north and east by the old Providence Railroad, on the south by Bridge Street and on the west by the Warren River. Designated in 1974, almost half a square mile of this area is a National Register Historic District. Over 300 documented historic buildings dating as far back as the mid-eighteenth century are located within this district. Books, studies and documents show that this area has been recognized as historically important for over 150 years. Besides the large number and variety of individual historic buildings, the eighteenth century layout of the streets and wharves and the

ongoing vitality of the waterfront add to the cohesiveness and importance of this district.

Kickemuit River Crossing/Windmill Hill Historic District
This historic area is noteworthy more for historic events and sites than for historic structures. The area is bounded on the north and east by the Massachusetts border, on the south by the old Fall River Railroad and on the west by Birch Swamp Road. Along the Massachusetts border are Margaret's Cave and King's Rock, site of the Wampanoag Nation's grinding mill. The oldest house in Warren, built by Levi Haile in 1682, still stands nearby. To the south along the Kickemuit River was the location of a "sweat," a hut where Wampanoags came to cleanse body and soul. Many significant events involving early white settlers and the Wampanoags took place in this area--including Massasoit's 1653 sale to Hugh Cole and others of the first tract of the land later incorporated as the town of Sowams. Warren's first houses were built here but were destroyed during the war in 1675. Warren's oldest cemetery, dating from 1690, lies along the Kickemuit. The district also contains Windmill Hill and the Ice Pond, just north of the reservoir. With the exception of Green Acres Heritage Park and the cemetery, this important historic area has no protection or programs for preservation.

Touisset Neck Historic District
This rural area extends from the old Fall River Railroad south to Mount Hope Bay, bounded on the east by the Massachusetts border and on the west by the Kickemuit River. With the exception of two summer colonies started in the early 1900s, Touisset has remained largely unchanged for over 300 years. The area contains several large historic farms and houses dating from the 1700s. At one time the Mason family owned all of southern Touisset; the 1720 Captain John Mason House and the Mason family cemetery survive to this day. The largest farm still in operation is Manchester's Farm, once known as "Gardener's Ideal Farm," comprising over 330 acres. The railroad that extended through the area in the 1860s increased the prosperity of the farming community, enabling farmers to sell produce and dairy products directly to Providence and Fall River markets. Today, development pressures and the lack of protective measures threaten the district's preservation.

Historic Buildings
A complete list of documented historic buildings can be found in the Warren, Rhode Island Statewide Preservation Report. The RIHPC survey of Warren identifies several individual properties as possibly eligible for listing on the National Register. In addition the Town has conducted an inventory of its housing stock by date of construction.

Archeological Resources
Warren has significant archeological resources, including Burr's Hill (between Main and Water Streets) which was a major Wampanoag burial ground from the 1500's to the 1700's. Although long thought to have been removed, parts of the cemetery may remain in the Town Park. The presence of the cemetery indicates that a sizable Wampanoag village may have existed nearby. The RIHPC survey includes an overview of local archeology. Using this information, the Town should give special attention to known and potential archeological sites.

Natural Resource and Historic Preservation Organizations
In addition to the Town-appointed Conservation Commission, the independent Warren Land

Conservation Trust (WLCT) is active in local land conservation. The specific function of the Land Trust is to preserve woodland, farmland, wetlands and other naturally and culturally significant land through the transfer of development rights, easements and outright purchase. The Trust also helps others preserve land and offers opinions on wetland issues.

Two historic preservation organizations are active in Warren. The Warren Preservation Society is active primarily in identifying, researching and designating historic structures with plaques. The Massasoit Historic Association runs the Maxwell House museum, a restored colonial house in the heart of the historic Water Street area. Independent historic preservation efforts in recent years have focused on attempts to establish some form of historic zoning in the downtown area, specifically on and around Water Street.

Town Character

An understanding of what constitutes a town's character enables the town to decide which components to retain, protect and/or accentuate, and which to remove or change. To most people, town character is vague and hard to define. Its complexity keeps decision-makers from focusing on what makes their town what it is. However, the exercise of defining what constitutes a particular town is well worth the effort, for it then becomes the basis for tailoring planning decisions to meet the unique profile of a community

Warren is a small town with a heritage tied to its water-related history and harbor and its rural atmosphere, represented by the remaining farms and related open spaces. Physically, the character of Warren can be isolated into two main areas that are hinged together where Belcher Cove nearly connects with the Kickemuit River. To the south is the built-up sector that straddles a central spine of wetlands and adjacent cemeteries. This area's western edge is the waterfront backed up by the historic area and Main Street. To the ~~west~~ *east* is a rural/suburban area dominated by large open spaces, many of which are fronted by housing or strip commercial uses. This more rural area is noted for the remaining farms and the largely undeveloped character of Touisset. In all cases, water is nearby but seldom dominates one's sense of place. Warren's magnificent water edges and scenic views are obscured, not easily visible from the roads and are often overlooked.

Warren's development history has resulted in side-by-side industries and residences with extensive road-related commercial and service uses. A layering of predominant uses moves inland from the Warren River: waterfront, historic district, Main Street, mills, and related housing. From the Kickemuit River side, the land ranges from residential uses to strip commercial.

Scenic Potential

A complex landform and the strong presence of water give Warren much potential for scenic beauty. However, many of the Town's potentially most attractive vistas have been closed off over time by billboards or large buildings such as the American-Tourister complex on the Warren River. Perception of a place based on observations made from main roads may be very inaccurate. Thus Warren may be perceived as less attractive in comparison with its neighbors.

Nonetheless, pleasing views remain to and from the water, across farmland and along river

edges. The bicycle path, which is used for fishing, walking and jogging as well as bicycle riding, has opened up vistas and heightened awareness of open water and wetlands previously all but hidden from public view. Many opportunities remain for increased awareness of the water and vistas of coves, rivers, the harbor, and the Bay. This is particularly true along the greenway in eastern Warren and along the historic waterfront.

Warren has, to a great extent, hidden its natural amenities behind a facade of buildings and land uses which deny consistent awareness of coastal and inland water edges or even historic structures. The Town should take active steps to reveal its natural and cultural character more successfully. It can do this by removing billboards, establishing more recreational corridors, and improving access to conservation lands. The Town's image can also be improved by cleaning up degraded areas and working with developers to insure that the public good is served through sensitive development. The visual character of Route 136 all the way into Town, however, could be improved. This can be accomplished in part by a street tree-planting program and by coordinated volunteer establishment of a twenty-five foot buffer between establishments and the road.

Management and enhancement of the Town's Street tree resources should be enhanced through participation in programs such as America the Beautiful, The Small Business Administration (SBA) tree planing grant, the Forest Stewardship Program (FSP) and the Stewardship Incentive Program (SIP). These three federally funded programs address the tree and forest resources of urban, suburban and rural areas. America the Beautiful and the SBA grant, administered through RIDEM Division of Forest Resources, provide cost-share funding for tree planting, care and forest improvement. The FSP and the SIP are part of the Forestry Title of the federal Farm Bill of 1990 and serve to implement the rural component of the America the Beautiful Program

Downtown Revitalization Plan/Waterfront Study

Main Street in Warren, like Main Streets all over the country, has declined from its former prominence as the commercial, municipal and cultural center of Town. Unable to compete with nearby shopping malls, Main Street and the surrounding downtown area has suffered from failing businesses and the physical deterioration of individual buildings and the overall streetscape. The Town recognized that restoring the vitality of the downtown Warren would have a positive impact on both economic development and historic preservation. The Town of Warren Downtown Revitalization Plan, completed in 1999 provides a vision for the future and a holistic approach to the revitalization of downtown Warren.[7] In addition the Warren Waterfront Study completed in 2001 provides future direction for the protection and enhancement of the waterfront portion of the downtown.[8] These plans will assist the Town in making decisions that effect the long-term viability of the downtown and in maximizing public funds.

Downtown Warren contributes significantly to the character of the Town. The basis for Main Street revitalization is renewed investment by owners and store managers so that the street has a cohesive and vigorous image. This transformation must be manifest in the types and diversity of stores found on the street, coordinated store hours and shared promotion. Parking, usually seen as the "villain," is only part of the problem and often can be dealt with by pooling public and

[7] Barbara Sokoloff Associates, April 1999. Town of Warren Downtown Revitalization Plan. Providence, RI.
[8] Urban Design Group, 2001. Warren Waterfront Study.

private lots, installing better signs identifying the system as open to all shoppers, and employing attractive, well lit landscaping. These factors are as important as facade improvement and improved store window displays. (See the Economic Development Element.)

Empty or partially used mill buildings and the specter of additional unused mill buildings calls for planning to find alternative uses for the buildings and/or sites. Again, these plans should set clear natural and cultural standards for future uses. Two especially critical sites must be monitored and contingency plans put in place for their use: the central core between Child and Franklin streets and the north end of the Water Street waterfront. A wait-and-see policy will lead to incremental, piecemeal solutions, whereas careful planning can result in clear benefits to the image, character and tax base of Warren. (See the Economic Development Element.)

Nunes Farm, which includes the Levi Haile House (c. 1682), was one of Warren's most historic properties. Construction of the planned unit development, however, has destroyed much of the site's potential to establish a renewed identity for this part of Town.

Right-of-ways/Waterfront Access

Warren's extensive waterfront along rivers and bays gives right-of-ways special significance. Public access helps realize the scenic and recreational potential of the Town's water resources and, in so doing improves townspeople's quality of life. There are numerous ROWs including some that are state-designated (CRMC), others that are Town-developed and maintained, streets that dead-end at the water, and traditional but unrecognized ROWs. In addition, potential ROWs have been cited in the Harbor Management Plan for the Town of Warren (1989) and other Town reports as worth pursuing. Currently, there is ambiguity as to the status of some "recognized" ROWs due to poor marking, insufficient maintenance and irregular use patterns.

Right of way to the water is a time-honored topic in coastal Rhode Island. The crux of the issue is the question of who has access to what land at the water's edge. The legal aspects of right-of-ways can be confusing and problematic; it is the intent of this Element to promote public access to the shore that will enhance Warren's key scenic features and recreational opportunities. Highlighting the coastline will increase the likelihood of attracting successful water-related businesses and other industry to the Town. The best way to address the need for more public access may be through public-private joint ventures that combine small holdings into more useful amenities such as waterfront walkways. Confirming, marking and enforcing existing right-of-ways must be an ongoing effort.

Town Image

Warren knows its heritage but consistently undersells itself. Overall, the Town reads as an old seaside town that has lost its original purpose and subsequently allowed change to fragment and tarnish its image. Many positive features remain in place, but less appealing uses and images separate these elements. The tattered, fragmented character of parts of the Town needs but a little work to present an improved image. The problem is largely a collective lack of awareness that must be replaced by a new sense of pride of place. This pride can be regained by working more aggressively to retain the Town's history as manifested in prominent older buildings and outlying farmlands so integral to the history and quality of life in Warren. In addition, small-scale infill development should be carefully designed so that it helps knit together the varied

patterns of land use *throughout the commercial areas of Warren*. Implementation of the Downtown Revitalization Plan *would* demonstrate a positive, proactive attitude towards making Warren a better, more appealing place to live.

In addition to benefiting local quality of life, capitalizing on town image can reap rewards by attracting businesses and tourism. In "selling" itself, Warren must be careful to retain its true character; attracting regional visitors is most likely to be successful if the Town highlights its own unique coastal character.

III. POLICIES AND ACTIONS

Policy 1: Preserve, protect and acquire open space for the purpose of preserving and enhancing the natural, historic and visual resources of the Town.

Action 1.1 Develop a Warren open space protection plan that prioritizes key parcels, and details protection measures [Warren Land Conservation Trust, Planning Board, Conservation Commission Town Council]

Action 1.2 Support the Warren Land Conservation Trust in the acquisition of environmentally and culturally significant properties. [Town Council, Planning Board, Conservation Commission]

Action 1.3 Enlarge the conservation zone around Belcher Cove and establish wildlife areas on the Palmer and Kickemuit rivers. [Town Council, Conservation Commission, Warren Land Conservation Trust]

Action 1.4 Establish a system of trails to improve pedestrian movement through and awareness of conservation lands (The trail system in Barrington can serve as a model). [Town Council, Conservation Commission, Warren Land Conservation Trust]

Action 1.5 Erect platforms to attract nesting ospreys and further promote awareness of Belcher Cove and other conservation areas. [Town Council, Conservation Commission, Warren Land Conservation Trust]

Action 1.6 Channel ~~of~~ open space funds for acquisition of conservation land. [Town Council, Warren Land Conservation Trust, Conservation Commission]

Action 1.7 Refer to the RI Natural Heritage Program as an advisory agency in identifying and protecting wildlife habitat and rare, threatened or endangered flora and fauna. Incorporate this procedure into development review. [Conservation Commission, Warren Land Conservation Trust, Town Council, Heritage Program

Action 1.8 Protect farmland and other valuable rural and natural resources by adopting protection measures such as rural development guidelines. ~~samples of which are available through RIDEM~~ [Planning Board, Town Council]

Policy 2: Preserve, protect and open up scenic views and overlooks including those to and from the waterfront, of and across farmland, to the Kickemuit River, and of historic resources.

Action 2.1 Establish "scenic" zones and viewsheds in which billboards are eliminated and landscaping requirements are more defined. [Town Council, Warren Land Conservation Trust, Planning Board]

Policy 3: Promote the preservation of historic and culturally significant buildings and sites. [Massasoit Historic Association, Planning Board, Town Council Warren Preservation Society, for all actions]

Action 3.1 Set up a revolving fund to be used in the rehabilitation of historic buildings, particularly those in the downtown area.

Action 3.2 Extend the existing downtown historic district to include additional historic structures and street patterns, extending the northern and southeastern boundaries.

Action 3.3 Consider the establishment of additional historic districts (per Inventory descriptions).

Action 3.4 Establish historic zoning in the Water Street/downtown area, regulating site plans and demolition and including design review.

Action 3.5 Establish an Historic District Commission whose responsibilities balance historic retention in designated areas with promotion of new development, affordable housing, and mixed use of older buildings.

Action 3.6 Restore the Levi Haile House (c. 1682) on the former Nunes Farm site, the oldest house in Warren, and establish it as a museum.

Action 3.7 Add to the State and National Registers all those properties including historic districts and well as individual properties that may be eligible for listing. [Above parties plus RIHPC]

Act ion 3.8 Recognizing the significance of archeological sites such as Burr's Hill; conduct a town wide assessment of such sites and plan for their protection.

Policy 4: Promote the revitalization and rehabilitation of the downtown area.

Action 4.1 Adopt the Town of Warren Downtown Revitalization Plan as part of Comprehensive Plan.

Action 4.2 Implement the Downtown Revitalization Plan [Warren Preservation Society, Planning Board]

Action 4.3 Update the sign ordinance and enforce it more effectively. [Planning Board,

Town Council, Building and Zoning Inspectors]

Policy 5: Foster the Town's maritime identity by promoting water-related uses in the Water Street area.

Action 5.1 Promote waterfront zoning that encourages water-related commercial uses in the Water Street area. [Chamber of Commerce, Planning Board, Town Council]

Action 5.2 Plan and establish a waterfront park system, building upon the concept plan in the 1976 Townscape Study. [Planning Board, Warren Preservation Society, Massasoit Historic Association, design consultants]

Policy 6: Promote the use of unused and naturally and culturally insignificant areas in the siting of industrial and commercial uses so as to have minimal impact on natural and cultural resources.

Action 6.1 Support potential use of the area bounded by Child and Franklin streets on the north and south and Arlington and Railroad avenues on the east and west as an industrial/service commercial park, emphasizing preservation of more naturally and scenically significant land. [Planning Board, Conservation Commission, Warren Land Conservation Trust]

Policy 7: Maintain and improve public access to shorelines and conservation areas and investigate linking such amenities to the Town center and to residential neighborhoods

Action 7.1 Identify, mark, enforce, and maintain established right-of-ways for pedestrian and other access to the water. [Conservation Commission, Warren Land Conservation Trust, Town Council]

Policy 8: Maintain, restore and protect groundwater quality and the water quality in Warren's rivers and reservoir for fish and wildlife habitat and for recreation and water supply purposes.

Action 8.1 Regularly update the Harbor Management Plan. [Planning Board, Warren Harbor Management Commission]

Action 8.2 Monitor industrial pollution of the Warren, Kickemuit and Palmer rivers. [Town Council, Conservation Commission]

Action 8.3 Examine the zoning and subdivision regulations and investigate other means such as public education and onsite wastewater management to help meet the standards of the TMDL Plan for the Kickemuit and Palmer Rivers.

Action 8.4 Initiate a town-wide program for the management of onsite wastewater treatment systems.

Policy 9: Preserve and protect the Kickemuit Reservoir and its watershed and tributaries for continuing use as a public drinking water supply and as a natural and scenic resource.

Action 9.1 Maintain input to the BCWA to retain and preserve the Kickemuit Reservoir and the rest of system as the primary or backup water supply. [Town Council, Conservation Commission]

Action 9.2 Protect the watershed through rezoning, performance and development standards, purchase of development rights, and/or outright purchase. [Warren Land Conservation Trust, Conservation Commission, Planning Board, Town Council.]

Action 9.3 Work with neighboring Towns in protecting the watershed. [Warren Land Conservation Trust, Conservation Commission, Planning Board, Town Council.]

Policy 10: Plan and implement roadside improvements that incorporate comprehensive street tree- planting and retention of stone walls.

Action 10.1 Develop a street tree-planting program for the downtown commercial area and subsequently for each residential neighborhood. [Conservation Commission, Warren DPW, Town Council]

Action 10.2 Enact an ordinance for the protection of historic stone walls, hedgerows and other rural remnants to help retain town character in more rural areas. [Warren Preservation Society, Warren Land Conservation Trust, *Planning Board*, Town Council]

Policy 11: Provide historic, environmental and cultural education opportunities to the public.

Action 11.1 Establish an environmental education center. [Conservation Commission, Warren Land Conservation Trust, Town Council]

Action 11.2 Expand school curriculum to include more emphasis on local history and the local natural environment. [School Department, Conservation Commission, Warren Preservation Society, Massasoit Historic Association]

Policy 12: Oversee vigilant enforcement of environmental laws, codes and regulations.

Action 12.1 Implement an educational program for the Warren Police Department that promotes and clarifies local environmental protection. [Conservation Commission, Police Department, RI DEM, RI CRMC]

Action 12.2 Charge the Conservation Commission with a "watchdog" function regarding environmental violations; such a monitoring role should be carried out in close cooperation with Town building and zoning inspectors. [Conservation Commission, Building and Zoning Inspectors, Town Council]

Policy 13: Promote environmentally and historically sensitive site planning and landscaping throughout Warren.

Action 13.1 Modify zoning and subdivision regulations to protect environmentally and historically important sites through buffering, landscaping and siting requirements. [Planning Board, Town Council]

Action 13.2 Adopt creative land development techniques such as flexible zoning that enable development, while preserving a site's salient features and the rural and working farm landscapes of Warren. [Planning Board, Town Council]

Action 13.3 Establish a buffer between businesses and the road along Route 136 into Town. [Planning Board, Chamber of Commerce, Town Council]

Action 13.4 Evaluate the potential enactment of some form of site plan review that includes an archeological component; the RIHPC can provide provides a model ordinance
[Planning Board, Town Council, RIHPC, Warren Preservation Society.]

Policy 14: Protect groundwater resources and public and private wells for current and future use.

Action 14.1 Conduct an inventory of threats to groundwater quality town wide and in particular within wellhead protection areas (WHPA'S). Prepare a local wellhead protection plan in accordance with the RI Wellhead Protection Program (WHP) Program. ~~Refer to RIDEM's summary of the WHP Program~~. [Conservation Commission, Town Council]

Policy 15: Recognize that when properly designed, sited, installed and maintained, ISDS provide a cost-effective and environmentally sound alternative to sewers particularly in those portions of Town that are noted for their rural character.

Action 15.1 Establish an onsite wastewater management district or other means to ensure the inspection and proper maintenance of ISDS. [Conservation Commission, Town Council]

Action 15.2 Complete an onsite wastewater management plan that will enable the residents of the Town to qualify for low interest loans for the repair and replacement of failed and sub-standard ISDS. [Conservation Commission, Town Council]

Policy 16: Establish and maintain measures to control sediment and erosion
[Planning Board, Conservation Commission, Town Council and Conservation Districts for actions below]

Action 16.1 Adopt and implement an up-to-date Soil Erosion and Sediment Control Ordinance using the RI Soil Erosion and Sediment Control Handbook *as* guidance in so doing.

Action 16.2 Include maintenance requirements as a condition of permit approvals and establish routine inspection and enforcement procedures.

Action 16.3 Consider participation in Regional Compliance Inspection Programs; Staff of Conservation District will assist towns in implementing the above requirements by reviewing site plans and performing site inspections. Town officials would maintain enforcement authority. It is proposed that a portion of building permit fees could be passed to the Conservation Districts to finance site review and inspection services.

IV. IMPLEMENTATION SCHEDULE

	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 1: Preserve, protect and acquire open space	*			PB, TC,WLCT, CC
Action 1.1 Develop Open Space protection plan	*			PB, TC,WLCT, CC
Action 1.2 Support WLCT	*	*	*	PB, TC, CC
Action 1.3 Enlarge conservation zones	*			WLCT, CC, PB, TC
Action 1.4 Establish trail system				CC, WLCT, TC
Action 1.5 Erect nesting platforms	*			CC, WLCT
Action 1.6 Land and easement acquisition	*	*		WLCT, TC
Action 1.7 Consult with RI Natural Heritage Program	*	*	*	PB, CC, WLCT
Action 1.8 Protect farmland and other rural and natural resources; adopt rural development guidelines	*			PB,TC
Policy 2: Preserve and enhance scenic views	*			PB, TC
Action 2.1 Establish scenic zones and viewsheds	*	*		PB. TC, WLCT
Policy 3: Preserve historic buildings and sites	*	*	*	WPS,TC, MHA, PB
Action 3.1 Revolving Fund	*			WPS,TC, MHA, PB
Action 3.2 Extend downtown historic district		*		WPS,TC, MHA, PB
Action 3.3 Create additional historic districts		*		WPS,TC, MHA, PB
Action 3.4 Historic Zoning Water Street/ downtown	*			WPS,TC, MHA, PB
Action 3.5 Establish Historic District Commission				WPS,TC, MHA, PB
Action 3.6 Restore Levi Hale House		*		WPS,TC, MHA, PB
Action 3.7 Add to state and national historic registers		*		WPS,TC, MHA, PB,RIHPC
Action 3.8 Archeological site assessment		*		WPS,TC, MHA, PB
Policy 4: Promote revitalization of downtown	*	*		

	ASAP	5 yrs	20 yrs	Responsible Parties
Action 4.1 Adopt Downtown revitalization Plan and Waterfront Study as part of Comp Plan	*			TC, PB
Action 4.2 Implement both plans	*	*		TC, PB, WPS Main St Coordinator
Action 4.3 Update and enforce sign ordinance		*		ZB, Building Official
Policy 5: Foster maritime identity by promoting water related use		*		TC, PB Chamber, Main St. Coordinator
Action 5.1 Promote waterfront zoning	*	*		TC, PB, Chamber
*Action 5.*2 Waterfront Park system	*	*		PB, TC, design consultant, MHA, WPS
Policy 6: Locate industrial and commercial areas to minimize impact on natural and cultural resources	*			PB, CC, WLCT
Action 6.1 Area between Child and Franklin and Arlington and Railroad		*		PB, CC, WLCT
Policy 7: Maintain and improve public access to shore	*	*		CC, WLCT, TC
Action 7.1 ID, Mark, enforce and maintain right-of-ways	*	*	*	CC, WLCT, TC
Policy 8: Maintain, restore and protect ground and surface water quality	*	*		
Action 8.1 Regularly update Harbor Mgt. Plan		*		Harbor Mgt. Commission, PB
Action 8.2 Monitor industrial Pollution	*			CC,TC
*Action 8.*3 Examine a variety of means to help meet TMDL's for the Kickemuit and Palmer Rivers	*			PB, CC. TC
Action 8.4 Initiate a town-wide program for the management of onsite wastewater treatment systems		*		CC,TC
Policy 9: Preserve Kickemuit River and watershed	*			TC, PB, WLCT, CC, BCWA
Action 9.1 Influence BCWA to continue to maintain Kickemuit as primary or backup water supply	*	*	*	BCWA, TC, CC
Action 9.2 Protect watershed through rezoning, easements, purchase, development standards, etc	*	*		PB, TC, CC, WLCT
Action 9.3 Work with neighboring towns for watershed protection	*	*	*	PB, TC, CC, WLCT
Policy 10: Roadside Improvements		*		TC, CC, DPW
Action 10.1 Street Tree Planting Program	*			CC, TC, DPW
Action 10.2 Ordinance to protect walls, and rural character.		*		TC, PB,
Policy 11: Provide historic, environmental and cultural education opportunities to public		*		
Action 11.1 Establish environmental education center		*		TC,CC
Action 11.2 School programs, local environment and history		*		CC, MHA, WPA, school district

	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 12: Enforce environmental laws	*	*		
Action 12.1 Program for local law enforcement		*		CC, Police Department, RIDEM, RICRMC
Action 12.2 Conservation Commission as "watchdog"				CC, Building Official, TC
Policy 13: Promote Sensitive Site Planning	*			
Action 13.1 Modify zoning and subdivision regs	*			PB, TC
Action 13.2 Adopt creative land development techniques such as flexible zoning	*	*		PB,TC
Action 13.3 Establish landscape buffer in commercial portion of 136		*		PB,TC
Action 13.4 Site plan review with archeological component	*			PB,TC
Policy 14*:* Protect groundwater resources including public and private wells.	*	*		CC, PB, TC
Action 14.1 Develop WHP program	*			CC,TC
Policy 15: Septic System Management	*	*		CC,TC
Action 15.1 Establish onsite wastewater management district		*		CC,TC
Action 15.2 Onsite wastewater management plan, to qualify for repair loans				CC,TC
Policy 16: Erosion and sediment control		*		PB,CC, TC, appropriate conservation district
Action 16.1 Adopt and Implement Soil and Erosion Control	*	*		PB,CC, TC, appropriate conservation district
Action 16.2 Maintenance Requirements	*			PB,CC, TC, appropriate conservation district
Action 16.3 Participate in Regional Compliance Inspection Programs	*	*		PB,CC, TC, appropriate conservation district

Supplemental Data – *Possible Hazardous Materials*

FACILITY	LOCATION	FUMES
Tillotson-Pearson	Market Street	Polyester Resin
Anchorage-Dyer	Miller Street	Polyester Resin
American Tourister	Main Street	Polyvinyl Chloride
Blount Seafood	Water Street	Rotting Clam Shells
Wastewater Treatment	Water Street	Raw Sewage

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WARREN COMPREHENSIVE PLAN
LAND USE ELEMENT

June 2003

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I. INTRODUCTION

The Land Use Element is central to the Comprehensive Plan because it directly affects all other Elements. In this section, the character of the town is described, existing land use inventoried and a future land use plan developed. A variety of profile areas have been delineated in order to provide an overview of the diverse nature of the community.

Current development and zoning are analyzed with respect to impacts on physical land characteristics, housing costs and availability, the tax base, services and utilities, transportation, economic development and town character. Growth management is discussed, a build-out analysis conducted and guidelines developed for the allocation of land between the various zoning categories. The resulting land use plan takes into account demographics and regional conditions and is accompanied by policies and recommended actions for its implementation.

The principal goal of the land use element is:

Goal: **To manage land use to support both the short-range and long-range goals and policies of all elements of the Comprehensive Plan. Such management shall be in the best interests of town character and the health, welfare and quality of life of Warren residents.**

Warren is considered by residents to be a small town, with its heritage tied to its harbor and water-related history. There is also an important rural component to the town exemplified in its remaining farms and open spaces. It has a land area of approximately six square miles (not including the Kickemuit Reservoir) a 1990 population of 11,385 (1836.3 persons per square mile) and an estimated July 1997 population of 11,822.[1] To a large extent, the presence of rivers, wetlands and harbors has dictated where development has been possible and what land uses practical.

The town's initial settlers were attracted to the area due to the value of the sheltered harbor. The configuration of surface waters limited growth and forced development to extend southward until it met Bristol, and eastward where land provided a link to Massachusetts communities. Remaining land was either too wet to develop or better used for agriculture. Soils, wetlands and high watertables have subsequently limited modern subdivisions. Excessive development pressure along the two north-south corridors has resulted in intensive linear commercial and mixed-use development. Active agriculture, particularly in eastern portions of the Town, is still a significant component of the landscape. Productive agriculture, together with the Town's other open space, enhances town character and helps to keep municipal and school expenditures from escalating.

II. PHYSIOGRAPHIC DESCRIPTION

[1] This is a rough population estimate based only on the total number of additional residential units constructed since 1990 (177 through June of 1997) multiplied by the 1990 figure of 2.47 persons per household. Total numbers of births and deaths from April 1990 through June of 1997 were not available from the Town, nor was any data on vacancy rates.

An understanding of what constitutes a town's character enables the municipality to decide which components of this composite they wish to protect and which components they wish to change or remove. To most people, town character is vague and hard to define. Defining what is unique and important about one's town, however, is well worth the effort that an assessment of this nature requires. It becomes the foundation for planning decisions that will implement conservation, growth management and economic development objectives. In order to define town character, a physiographic analysis of the Town was completed. This analysis looked at how the physical features of Warren have affected its settlement and development patterns. This analysis was then used to develop eleven profile areas within the Town.

Physically, the character of Warren can be isolated into two main areas (Figure 1 Existing Land Use). The first area, located to the south of Belcher Cove and Kickemuit Road and west of the Kickemuit River is essentially developed, except for a central area of wetlands and adjacent cemeteries. The second area, located north and east of Belcher Cove, is an area which contains large open spaces many of which, however, are fronted by housing or strip commercial uses The waterfront along the Warren River forms the western edge of area 1. The Waterfront Historic District contains a mixture of residential and commercial development and is located along the northern portion of this area. To the south, medium high residential development is characteristic of the neighborhoods while strip development is prevalent along Metacom Avenue. A mixture of industrial uses is located between Child Street and the railroad right-of-way. Warren's land use is more complex within the built-up portions of the western section of Town. Warren's development history has resulted in side-by-side industries and residences with extensive road-related commercial and service uses. Vestiges of the once-dominant mill life of the Town remain. A layering of predominant uses moves inland from the Warren River: waterfront, historic district, Main Street, mills, and related housing. From the Kickemuit River side, the land ranges from residential uses to strip commercial. In the middle, all of these land uses meet, intermingle and are made more complex by several industries.

The second principal area is located east of Belcher Cove and the Kickemuit River. In contrast to the first area, farmland and the largely undeveloped nature of Touisset characterize this more rural portion of town. There is, however, a large industrial/commercial development located along the northern portion of Market Street and a sizeable area of medium density residential development on the eastern end of Child Street.

Circulation acts as both stimulant and depressant to the image and character of the town. Life in Warren is characterized by hustle-bustle but also by ragged edges and congestion. All of these characteristics are present along its principal roads.

A. CONTAINMENT

Containment is a term used to describe the physiographic conditions that have defined the pattern and concentration of development. Factors affecting containment include steep slopes, waterbodies, highly erodible land, bedrock outcrops, wetlands, etc. In Warren's case, containment is primarily dictated by the sculpted water edges and by the more subtle limits imposed by wetlands. A containment analysis establishes the following areas:

The Historic Center[2] (Warren's Waterfront Historic District), the first area, retains the harbor as its western edge. To the south, coastal wetland at one time more clearly demarcated this area than is obvious today. Historically, the inland boundary that extends from Belcher Cove south along the cemeteries was also more clearly defined.

The ridge north of Belcher Cove and related high lands on either side of Market Street compose the second area. The area is defined by the coastal edge of the Palmer River and associated wetlands as well as similar edge conditions along the upper Kickemuit River (now Kickemuit Reservoir).

North and south of eastern Child Street is defined by wetlands located southeast of the Kickemuit Reservoir, wetlands associated with the Kickemuit River and extensive wetlands south of Child Street along the state line and the coast.

Touisset Point is a long ridge of contained land defined by the coast and wetlands in the Chase Cove area. Soil and groundwater conditions further restrict settlement potential.

Laurel Park is the last contained area and was once was separate from the rest of built-up Warren. Due to the development of Metacom Avenue and residential in filling of the last several decades, this area now merges with downtown Warren.

Widespread residential growth and the privatization of the coast have blurred the boundaries of these once separate areas.

B. DEVELOPMENT PATTERNS

There are essentially four development patterns in Warren: rural, suburban, town center and strip commercial.

The rural pattern dominates in two areas, Touisset Point and the northern part of town, with the exception of the commercial and industrial corridor of Market Street. The ideal and actual images for the rural pattern, however, are not in sync. Although there is widespread interest in retaining the rural character as embodied Warren's farms and open spaces, development continues to erode the Town's rural nature.

Town wide some 40 percent of the land is classified as prime agricultural soils. Efforts to preserve farmland through state programs and the local land trust have given only marginal control to the incremental transformation of these areas. Rural character is very important to

[2] Warren has two other areas of historic significance; Kickemuit River Crossing/Windmill Hill Historic District and Touisset Neck Historic District. Of these three districts only the waterfront historic area is currently an official historic district. The Rhode Island Historic Preservation Commission in 1975 initially recommended the other two. Protection and enhancement of Warren's historic resources is vital to maintaining town character. The Natural and Cultural Resource Section of the Comprehensive Plan contains additional information on Warren's historic resources.

Warren's identity and must be protected through appropriate zoning and land planning techniques. Agreements such as Warren's local Farm, Forest and Open Space Protection Plan agreed to by the farmers and the Town in 1997 and the $1,000,000 for open space protection approved in a local referendum are important first steps in preserving the Town's remaining rural areas. The referendum, which passed by a two-to-one margin, indicates the importance of open space preservation to the residents of Warren and their willingness to implement the open space initiatives of the comprehensive plan.

The suburban pattern is an extension and acceleration of what began as small town residential growth. It is the most consistent pattern and includes older residences as well as modern subdivisions. It is most prevalent in large areas on both sides of Metacom Avenue and throughout the Town in variously sized pockets extending back from roads. There is an obvious conflict where this pattern encroaches into agricultural and rural areas. Residential development and the preservation of rural character, however, are not mutually exclusive. Techniques such as cluster development and flexible zoning, when used in conjunction with rural site design criteria, allows sustainable residential growth to occur while still preserving the beauty of these important areas.

The town center is a complex pattern consisting of three layers: the waterfront, Water Street and Main Street. It also encompasses the built fabric of the immediately adjacent streets. It consists of a historic small town pattern overlaid in part by more recent amenities and modifications. It is an area of surprising juxtapositions and details but also one with many missing pieces and the calluses of neglect and under-recognized worth. Warren's downtown is one of the municipality's defining attributes, a diamond in the rough. Economic development and the preservation of the historic character are integral components to any development or redevelopment of the town center.

The strip pattern is primarily found along Metacom Avenue and in a commercial/industrial area along Child and Market Streets. Strip development has resulted in urban congestion and detracts from a tangible heritage and a sense of place. It is the most negative development patterns in Warren. Vacant or under-used land and ragged edge conditions also characterize Warren's strip development. The presence of vacant and under used land, however, could be positive in terms of visual and traffic related improvements for future development and commercial upgrades.

Large industrial buildings also play an important part in the overall character of Warren. They do so as exceptions to the above patterns and should, depending on the circumstances, be seen either as landmarks or eyesores.

C. PROFILE AREAS

In previous comprehensive plans, Warren was divided into four planning areas for the purpose of assessing demographic and service needs. These areas did not, however, describe Warren's more complex natural and cultural land use patterns. The above information on containment, land use and development patterns was used to delineate eleven profile areas (Figure 2). These districts help one to understand the diversity of Warren and to better address the specific needs of different neighborhoods. Defining factors such as natural and man-made edge conditions and differences in

land uses and building types were used to delineate profile areas. Figures 3 and 4 contain sketches of some of these profile areas.

1. Market Street *(Road-related uses: Town line to Kickemuit Road)*
This profile area is a linear stretch that includes all of the road-related commercial, industrial, service, open space, and residential uses within approximately 200 feet of Market Street and those roads (mostly dead ends) which stem from it. The area has a disjointed character due to the alternating pattern of housing, farms, larger scale roadside businesses, service uses, and vacant land. Development in this profile area appears to be the result of opportunistic land use changes unchecked by performance standards.

2. Belcher Cove *(Bike path around Belcher Cove to town line)*
This profile area includes all of the coastal land surrounding Belcher Cove and related undeveloped or marginally used lands. The area is very scenic as viewed from the water but is essentially hidden from view when looking towards the water. This area is most often viewed from a distance and the best views are from Barrington. The East Bay Bike Path has increased the public's awareness of this area. Three main issues must be addressed in future plans: the natural vulnerability of the edge, the possibility of adjacent development between the coast and Market Street, and the high conservation potential.

3. Upper Kickemuit River *(Rural/agricultural lands: Poverty Corner-west and north to town line)* Profile area 3 contains a substantial portion of agricultural land, some of which is still actively farmed. Residential development extends back from Market Street and along parts of School House Road and adjacent roads. This profile area is centered on the Kickemuit River, a major scenic feature that complements the agricultural land. Preservation and enhancement of rural and scenic character is an objective of this profile area.

4. Child Street East *(Kickemuit River east to town line)*
This neighborhood primarily consists of housing subdivisions built during the last few decades. The majority of these, to the north of Child Street, are on subdivision roads that extend back some distance. Busy Child Street retains a number of older residences with some newer multi-unit structures at the intersection of Long Lane. Most of the area has been developed in pieces. The lack of cohesion here is the result of incremental development and unclear planning objectives.

5. Child Street West *(Kickemuit River west to bike path and edge of Belcher's Cove wetlands)*
This is a much older, built-up neighborhood centered on the mixed use/commercial development along Child Street and the Carol Cable mill complex. Blocks and lots are small and the streets narrow, with buildings close to the road, especially where Child Street (Route 103) intersects the convergence of Kickemuit, Arlington and Metacom (Route 136). The area has a compact appearance, occasionally interrupted by vacant land, parking lots and industry-related uses.

6. Town Core *(Waterfront, Water Street and Upper Main Street, Warren River Bridge to Franklin Street, bike path and edge of Belcher Cove wetlands)* This profile area contains three critical components of the town: Main Street, the historic district on and around Water Street, and the

waterfront. They have been combined into one area due to their proximity and linked histories. Main Street in Warren is an example of the classic American commercial and civic main street that saw the passing of its heyday several decades ago. In Warren, however, it still serves as the center of town life. Water Street and adjoining blocks comprise an historic maritime core with an ongoing commercial life (antiques, crafts, restaurants, and water-related businesses) and a large stock of Early American and Victorian buildings.

Although largely obscured by the American Tourist complex and other buildings, especially at its northern end, the waterfront has retained its commercial life. The southern end of this area contains boat yards, boat building, the Warren Town Beach, Burr Hill Park, the sewage treatment plant and dead-end residential streets and rights-of-ways with varying degrees of accessibility. Overall, it is a complex area of three parallel linear sections: the waterfront, the historic district and Main Street.

7. Lower Main Street & West *(Main Street to Warren River: Franklin Street to Bristol line)*
This is a small neighborhood, exhibiting the same "condo" land use pattern found along the adjacent shore in Bristol. These attached residential units are set apart from the rest of Warren by unified landscaping and well built stone walls left by earlier settlement patterns. Together these help to define an exclusive, preserve-like atmosphere.

8. Metacom Avenue *(Strip development, Kickemuit Road to Bristol line)*
This linear area is engulfed by the franchise and related commercial activity of the Metacom strip that extends well into Bristol. Unlimited curb cuts, excessive signage, little or no landscaping and heavy traffic all set this area apart from abutting residential neighborhoods.

9. West of Metacom *(Residential area west of Metacom Avenue)*
To the west of the Metacom strip is an extensive small town suburban neighborhood built over the last several decades. The streets between adjacent subdivisions seldom connect with each other. At first glance, the area appears to be made up entirely of post-World War II housing, but older houses are located throughout the area, especially adjacent to Main Street.

10. East of Metacom *(Residential area east of Metacom Avenue)*
This area, similar to profile area 9, consists of suburban, residential developments on a rough grid of streets that meander as they reach the slope descending to the Kickemuit River. Again, the residences are predominantly post-World War II with older structures scattered throughout.

11. Touisset *(Touisset Neck south of Child Street area developments)*
This is the largest and least densely developed area. It is mainly composed of farms and nurseries with scattered, recently built, individual "suburban" houses and two enclaves of former summer houses, most of which are now used year-round. Touisset is the largest unsewered part of town and has the greatest natural constraints to development. The central issue here is the balance between the rural and agricultural landscape and development pressure. There is strong interest in preserving active agriculture, but land planning techniques need to be established to ensure that residential development does not relentlessly establish a new suburban pattern.

III. EXISTING LAND USE

A. INTRODUCTION

Warren's current land use is a complex configuration of patterns with a wide variety of uses within very constricted areas. These patterns are exemplified in the Existing Land Use Map (Figure 1). Many spot zones are present and are the result of incremental decisions rendered over time in response to small-scale actions. It is difficult to assess the extent to which piecemeal land use and zoning is a product of the physical configuration of the town and its historic evolution and how much is due to opportunistic development. In the past, there was no plan directing the distribution of land uses, but rather a reactive process of acknowledging inevitable change.

The complexity of Warren's land use pattern generally precludes assignment of single uses to neatly defined areas. However, there are exceptions: sectors that are nearly all residential should remain so, and areas now dominated by farms and large lot housing should be recognized as farm conservation areas. On the other hand, transitional areas with many disparate uses and a great deal of vacant land should be given focused land use objectives in order to develop a cohesive mixed use policy.

Portions of the Town have radically changed in recent years and the new development patterns established do not make a positive contribution to overall character. Chief among these is the increased service/industrial use of Market Street and the commercial development of the "strip" along Metacom Avenue. Certain older uses--predominately industrial--are in the process of change and that the outcome of this change is unclear. The Town will have to make some hard decisions to refocus the uses of industrial and strip commercial areas. Automobile circulation pressures will continue to exacerbate the image and character of these areas.

Warren's fragmentary and diverse land use patterns, along with its relatively intact rural areas, create its special identity. Achievable land use objectives must be defined that recognize and protect those qualities that make Warren unique.

B. LAND USE AND ZONING MAPS

There are three maps related to land use and zoning: Existing Land Use (Figure 1), Existing Zoning (Figure 6) and the Future Land Use Plan (Figure 7). The designated landuse categories and assigned densities of the Existing Land Use Map are based on mapped data from the Rhode Island Geographic Information System (RIGIS) and the associated statewide classification system. Under this system residential densities are categorized as follows:

Low	>2acres
Medium-low	1 to 2 acres

Medium density	1/4 to1 acre
Medium-high	1/8 to 1/4 acre
High	<1/8 acre

Although this classification system is consistent and represents a statewide average, individual communities differ as to how they interpret what constitutes high density and low density residential development within their own Town. Generally, this interpretation is based on the nature of existing development. In the more rural towns, for example, low-density residential zoning might be 5 acres and high density might be ½ acre. Conversely, in a more urban community, low density might ½ acre. In order to retain a consistent and statewide coverage of existing land use, these differences in interpretation are not reflected in the existing land use map. The Existing Zoning Map, however, does reflect local interpretation of the residential densities by assigning densities and specific district boundaries to the more generalized Future Land Use Plan.

The Future Land Use Plan (Figure 7) is based on concepts presented in Warren's original 1991 Draft Comprehensive Plan (specifically the Proposed Landuse /Zoning Map) as subsequently modified by the Planning Board and Zoning Revisions Committee during the Phase II Zoning revision process (1996-1997). It depicts a future vision or land use plan for Warren. The Existing Zoning Map (Figure 6) assigns densities to the concepts and designations of the Future Land Use map. The changes made to Warren's zoning in 1997 were based on the Future Land Use Plan and differ substantially from previous zoning. All future zone changes must also be consistent with Warren's Future Land Use Plan.

C. SUMMARY OF LAND USES

Development in Warren, once centered in the downtown area with farms scattered inland and on the Touisset peninsular, has become more spread out over time. The Main Street area is still the center of municipal life but has become less defined and vigorous as a commercial area.

Despite Warren's complex intermingling of land uses, a few generalized land use patterns can be defined (Figure 1). Chief among these is the dominance of farmland and open space in the eastern portion of the Town. This is in contrast to the developed nature of Warren south of Belcher Cove and Kickemuit Road. In some eastern areas, notably in the subdivisions along Child Street, suburban development has blurred the contrast between open farmland and the dense downtown. In other areas residential use exists but either blends into mixed-use edges, or does not occupy sufficient area to establish itself as a dominant use.

Table 1 summarizes land use acreage in Warren. This is followed by a brief description of the major land use types within Warren; residential, commercial, industrial, mixed use, municipal/institutional, transportation, open space and undeveloped land.

1. Residential

Approximately 30.75 percent of the land in Warren is residential and dominated by single family residences. Table 2 depicts the relative percentages of the various residential densities throughout

Warren. About 654 acres or 53.5 percent of the total 1222 acres of residential development are categorized as medium high density (between 4 and 7.9 dwelling units per acre). Most of the remainder is either high density (> than 8 units per acre) or medium density (1 to 3.9 units per acre). Approximately 6.82 percent of the residential development is characterized as low and medium low density and generally occurs in the outlying areas.

Table 1, Land Use Acreage in Warren, 1997
Source: (RIGIS, 1988 as updated by Town 1997).

CATEGORY	ACRES	PERCENT
Low Density Residential (> 2 ac.)	39.62	1.00
Med. Low Density Residential (1 to 2 ac.)	43.68	1.10
Med. Density Residential (1-1/4 ac.)	271.93	6.84
Med. High Density Residential (1/4 to 1/8 ac.)	653.69	16.45
High Density Residential (<1/8 ac.)	212.8	5.36
Commercial	133.04	3.35
Industrial	134.34	3.38
Transportation/Utilities	46.34	1.17
Institutional	74.14	1.87
Farmland	795.1	20.01
Brushland, Forest	418.06	10.52
Recreation	199.81	5.03
Wetlands	847.46	21.33
Ponds	58.01	1.46
Other	45.17	1.14
TOTAL	3,973.19	100.00

Table 2, Residential Acreage Summary, 1997
Source: (RIGIS, 1988 as updated by Town 1997).

CATEGORY	ACRES	PERCENT
Low Density (>2 ac.)	39.62	3.24
Medium Low Density (1 to 2 ac.)	43.68	3.58
Medium Density (1 to 1/4 ac.)	271.93	22.26
Medium High Density ((1/4 to 1/8 ac.)	653.69	53.51
High Density (<1/8 ac.)	212.8	17.42
TOTAL	1,221.72	100.00

Warren's housing stock consists of historic houses in town, farm houses, mill housing, two and three level duplexes and triplexes, tract or suburban developments, elderly housing, condominiums and most recently, owner-occupied multi-unit complexes. Most of the housing types typically associated with early town building, the rise of the Industrial Revolution and post-industrial housing can be found in Warren. These housing types are distributed as follows:

Farm Houses
Older Single Family (late 19th and 20th centuries)
Historic Urban Town Houses
Mill Housing (Two and Three Level duplexes or triplexes Predominantly in Profile Areas 5 and 6)
Tract or Suburban Type Houses (Predominantly in Profile Areas 2, 3, 4, 9, and 10)
Condominiums (Profile areas 5 and 7)

The Housing Element contains further information on each of these housing types.

2. Commercial

Commercial development comprises 3.35 percent of the land in Warren and can be divided into the following four categories.

(a) *Traditional Main Street retail stores extending roughly from North Water to Franklin Street.* This is the traditional main street found in most small towns. Like so many others, Warren's Main Street shows signs of neglect and the need for focused revitalization efforts.

(b) *Highway-related commercial development found on Market and Child streets (Child Street from the Bike Path east; most of Market Street).* These strips have different characteristics: Child is an older mix of automobile services, some residences, mills, and miscellaneous services; Market

Street is a newer version with larger, more spread out facilities catering to automobiles and boating and providing various services.

(c) Strip *commercial uses on Metacom Avenue from Franklin Street south, dominated by fast food businesses, supermarkets and gas stations.* Metacom is the modern strip of franchise fast food businesses, gas stations, super markets, and other typical strip businesses--all serviced by many curb cuts. Small enterprises and the absence of large shopping malls characterize this area. Because of its linear location and design this relatively minor land use (in terms of total acres) disproportionately dominates one's image of Warren.

(d) Other *Commercial Land Uses (Corner of Child Street and Metacom Avenue; Warren Harbor).* This is an older neighborhood commercial area marked by diminishing convenience shop and restaurant activity. Other isolated commercial activities include waterfront services and restaurants along Water Street and in the harbor area.

3. Industrial

Formerly more dominant, industrial activity now comprises only about two percent of Warren's land. There are essentially three types of industrial activity in Warren: mill and related multilevel manufacturing, newer single-story service uses, assembly plants and marine activities.

(a) *Mill Industry (Isolated sites found in the center of the town).* Three locations can be identified: The American Tourist complex along the Warren River; several buildings between Child and Franklin streets in the center of Warren, and the former Carol Cable. These facilities are vestiges of a passing way of life and present the opportunity for creative re-use options.

(b) Twentieth *Century Industry (Two sites: one in the center of Warren, and another on the east side of Market Street)* The Lloyd Manufacturing plant is a large, one-story structure along the old railroad tracks north of the cemeteries. Boats and other fiberglass products are manufactured at the TPI facility on upper Market Street.

(c) Marine *Industries (Southern end of Water Street)*
This area is dominated by water-related uses including a boat yard and Blount Seafood plant north of the new sewage treatment plant. The southern end of the harbor also contains smaller marinas and marine services.

4. Mixed Use

A large part of Warren consists of mixed land uses where stores, homes, industries, services, and farms are found adjacent to each other or even on the same property or in the same building. This mixed-use pattern contributes vitality and diversity and, at the same time, confusion and fragmentation. Diversity comes in the form of many auxiliary or more affordable residential units that are located above stores or in other mixed-used situations. Confusion is caused by the ambiguous delineation of one land use area from another and it is sometimes difficult to determine any dominant land use.

5. Municipal and Institutional

These land uses consist of public and semi-public facilities, schools, religious institutions, nursing homes and health facilities, and social clubs. About 1.17 percent of Warren's land is occupied by these uses. (See the Services and Facilities Element for more in-depth information.)

(a) Public *facilities: (Primary facilities are the Town Hall, East Bay Government Center, Public Works facilities on Birch Swamp Road, Bristol County Water Facility and the Warren Wastewater Treatment Facility on Water Street).* These basic Town functions are located separately from each other with little land set aside for possible expansion. Bristol County Water Authority is a public utility owned by Warren, Bristol and Barrington.

(b) Schools*: (the complex located off of Asylum Road plus other school sites).* The primary complex includes Kickemuit Middle School, Warren High School and the Hugh Cole School. The land appears adequate to accommodate a larger complex. The other public schools are located at individual sites; some of them are functionally obsolete or will be soon. Our Lady of Fatima is the largest private educational institution in Warren.

(c) *Semi-public facilities: (George Hail Free Library)* These functions complement public facilities and provide necessary services. The library contributes to municipal life in the center of town.

(d) Religious *institutions: (several religious buildings are located within the Historic District and along Child Street and Main Street).* Two historic churches, the Warren Baptist Church and the First Methodist Church, are located at the core of the original village. Other churches are located along Main Street and Child Street. Our Lady of Fatima School is located off Market Street. Three main cemeteries hold prominent positions: South Burial Grounds, Greenwood Cemetery and the oldest cemetery in Warren which is located on the Kickemuit along Serpentine Road,

(e) Nursing *homes and health facilities: (Nursing homes are located on either side of the Kickemuit and on Metacom Avenue and Main Street).* These moderately scaled facilities are located in or on the edges of residential neighborhoods.

(f) Social *clubs:* Several clubs are scattered throughout the built-up sections of town. They include the German-American Club, Italian-American Club and American Legion.

6. Transportation Land Uses

The transportation systems serving Warren are limited to the street/highway system and the recently introduced bike path. Once served by train, Warren has had no passenger service since the 1938 hurricane. (For additional information see the Circulation Element.)

(a) *Street and Highway System:* Warren has two significant traffic problem areas: the double bottlenecks of north-south traffic at the Warren River Bridge and at Child Street and the

unsystematic nature of local streets which are usually not laid out as part of a grid nor well inter-connected.

(b) *Bike Path:* The East Bay Bike Path runs through Warren along the old north-south railroad line. This new path is very well used. The potential for another route exists on the old east-west railroad right-of-way and is currently being studied by RIDOT.

7. Open Space, Conservation & Recreation

Warren has recreational and other open space facilities as well as several conservation sites and protected lands. The total land area of recreational facilities and open space properties is in excess of 660 acres (approximately 16 percent of the land in Warren), not including the two-mile long bike path or the 44 acres of surface water at the Kickemuit Reservoir. According to the land use map active recreation facilities account for 199.81 acres. For a detailed inventory refer to the *Recreation, Conservation and Open Space Plan* (1995) which also serves as the Recreation, Conservation & Open Space Element of the Comprehensive Plan.

Active recreation plays an important role in Warren and makes up about 5 percent of the land use. This category includes private fields, playlots and other facilities open to the public. A complete list can be found in the Recreation, Conservation and Open Space Plan.

8. Potentially Developable Land

A good deal of Warren's land use is not assigned to one of the above categories. This undeveloped land, excluding wetlands and beaches, is--or once was--predominantly farm-related. There are approximately 974.48 acres of potentially developable land in Warren. Of this 593.84 acres (60.7 percent) is farmland 331.17 acres (33.8 percent) is forest/brushland, and 5.5 percent has been classified as other. Additional information relating to developable land in Warren as it relates to zoning, and potential growth is located in Section V of the Land Use Element "Future Land Use".

IV. LAND USE MANAGEMENT

A. INTRODUCTION

The town must critically evaluate each new development pattern before allowing it to be imposed on the Town. Warren is too small and already too diverse to assimilate extensive large-scale industrial, commercial or other developments. Large modern residential developments can also pose problems and should not be imposed on existing patterns without careful evaluation before permitting.

In keeping with the RI Comprehensive Planning Act, it is the intention of this Plan, that the Town assumes a more responsible and progressive role in charting its future. Development objectives for a variety of land use types within Warren are presented in this section.

B. OPPORTUNITIES

Warren's approach to land use has been permissive, allowing mixed uses and very fragmented zoning districts. It has become increasingly difficult to reverse this trend simply because of the fine grain of different land uses and the precedents set. A more cohesive pattern of land use cannot be realized simply by overlaying a new zoning map and land use interpretation on the existing pattern--at least not in the built-up sections of town. Significant opportunities for enhancement, however, exist in the following areas:

Farmland: Implement appropriate zoning and innovative land planning techniques designed to ensure sustainable residential development and farmland and open space protection - New procedures (farm conservation measures, cluster developments, flexible zoning, rural development standards, etc) should be developed. Future housing and associated infrastructure should be developed so as to minimize its impact on the physical and visual character of farms, fields, vistas and open space.

Main Street: Refurbish and coordinate the management of Main Street to capture the potential of its historic character while increasing its economic vitality - This would include coordinated promotion and beautification, additional street tree planting, and facade improvements. Key buildings such as the Tavares Building, and upper floor residential conversions in commercial buildings provide unique opportunities for a revitalizing the downtown. Appointment of a Main Street manager would facilitate coordinated marketing, renovation and promotion. (For additional detail, see the Economic Development Element and the *Town of Warren Downtown Revitalization Plan,* Barbara Sokoloff and Associates, April 1999.)

Housing Types: Determine **the types of housing felt to be appropriate for Warren and establish well-crafted performance standards for all innovative housing including control over the number of units per development -** Consideration should be given to density-based housing layouts as substitutes for simple one house per fixed minimum area lots.

Lot Maintenance: Encourage the individual maintenance of private residential, commercial and industrial lots. Monitor enforcement of codes.

North Market Street: This area is critical to establishing the image of Warren as approached from the north along Route 136. The existing PUD detracts from the visual quality of the area. Scenic enhancement of the area, however, is possible if attention is given to visual character when developing the remaining vacant land.

The Levi Haile House (c. 1682), is one of Warren's most historic properties and its location suggests that there is much to be gained by its retention and restoration. The site may present opportunities for a farmers' market, picnic area and Visitor's Center.

Attention should be paid to improving the visual character of Route 136 all the way into Town. This can be accomplished in part by a program for the planting of street trees and by the

coordinated volunteer establishment of a landscaped buffer between establishments and the road. A landscape architect or garden designer could be hired to develop a handful of prototype commercial buffers. Grant funding could be sought for the renewal effort and existing parking requirements reviewed by the zoning board in order to determine if they are excessive in some instances.

C. ANALYSIS

1. Contrasting Character Between East and West Parts of Town:
The marked contrast between open land visually dominated by farms and farm fields in the eastern portion of Town, and the downtown and small town residential character of the west is an asset worth retaining through appropriate land use controls. The current trend is for these farms to either be encroached upon or eliminated by residential development that is by nature "suburban." These new houses increasingly mask views of farms and obscure awareness of the farm history and character of the land. The different density and pattern of use in this area is an asset that Warren could easily lose or severely compromise. Edges should be recognized and defined as part of the Town's planning strategy. Growth and privatization of the coast should not be allowed to further blur these distinctions.

2. Main Street: Main Street in Warren, like Main Streets all over the country, has declined from its former prominence as the commercial, municipal and cultural center of town. Unable to compete with shopping malls and strip development, Main Street has suffered from failing businesses and the physical deterioration of individual buildings and the overall streetscape. Attempts to revitalize Main Street through the use of brick paving and tree planting and more extensive plans called for in the 1976 *Warren Townscape Project* have been incomplete at best. A more aggressive, economic-based effort is needed. (See also Economic Development Element.)

Main Street could play a vital role in the restoration of town character. There are several buildings within the central Main Street stretch of five blocks which, if restored, could spark renewed interest in the street and a change in perceptions and aspirations. The Tavares Building is a prominent building that could serve as a catalyst. In its present state, Main Street is generally not actively observed and experienced. It is used in only a limited way, and does not even begin to live up to its physical and commercial potential.

The basis for Main Street revitalization is renewed investment by owners and store managers so that the street has a cohesive and vigorous image. This must be manifest in the types and diversity of stores found on the street, coordinated store hours and shared promotion. Parking, usually seen as the "villain," is only part of the problem and often can be dealt with by pooling public and private lots, installing better signs, identifying the system as open to all shoppers, and using attractive, well lit landscaping. These factors are as important as facade improvement and improved store window displays. (See the Economic Development Element.)

3. Residential Land Use: Over the last several decades Warren has welcomed new suburban housing as a logical use of its land and a means by which many townspeople and others from the region could improve the quality and size of their homes. This trend involved the use of existing

roads and available land. The resulting pattern has in-filled a large portion of the more easily built sections of town. Considerably less building has occurred where large land holdings and/or farmland have been more resistant to development.

The town has allowed market forces to renew some of the historic fabric in the downtown core and has passively encouraged historic retention and refurbishment of older houses. A smaller portion of the housing stock has remained in marginal condition. Over the next decade, Warren will probably experience an increase in the restoration of historic houses. This will reduce the number of inexpensive units and put more pressure on the Town to find alternative ways of housing its traditional population. This will continue to be expressed in the need for housing which is affordable by the sons and daughters of present day working and middle class residents.

Regional economic and growth patterns impact development in Warren. Economics no longer work within the confines of the individual town. Due to its proximity to Providence, location along the coast and relatively low cost of housing, Warren will continue to be attractive as a place to live. These trends will impact the traditional working class population in terms of housing costs and availability.

Any attempt to slow Warren's integration into the regional market and retain some of its local character must involve aggressive establishment of planning strategies that allow accessory units, conversion of older non-residential structures and density approaches to the development of open areas. The Town must actively focus its policies pertaining to older residential structures, especially those of little or no historic significance. These buildings must be actively brought into code compliance, and targeted to lower income families. Issues to be addressed include exterior maintenance and occupancy standards, based on the number of units and individuals per structure. A more detailed inventory and analysis of residential land use as it relates to housing opportunities is presented in the Housing Element of this plan.

The Town should work to connect roads in suburban areas so that there are additional means of access and egress within isolated subdivisions. While the existing pattern is often conditioned by natural constraints, there has also been complacency in allowing dead-end streets and unconnected subdivisions to proliferate. These streets increase service needs and costs and diminish fire and safety access.

4. Commercial Land Use: Just as the deterioration of Main Street has had a negative impact on Warren's town character, so has the proliferation of strip commercial uses, particularly along Metacom Avenue and Child Street. As strip commercial uses spread, town character is blurred. Furthermore, commercial vitality is greater when business activity is clustered or limited to more compact areas. Commercial activity that strings out along roads leading away from town, often signals diminished economic vitality. When land costs and spatial demands are low, commercial uses along the highway or road into town tend to sprawl, curb cuts are ill defined, and traffic problems created.

For the most part, commercial development has been at a relatively small scale, poorly positioned to compete with larger, regionally based shopping centers. The result can be seen in the rather

depressed state of Main Street and the marginal nature of business on Child Street and portions of Market Street. Similar economic instability may occur on Metacom Avenue simply because of the small size of parcels along this strip.

Warren exhibits all the symptoms of over-extension and low intensity commercial life and can certainly benefit from a reduction in the overall linear area allotted to commercial uses. Too much linear street frontage in commercial use spreads intermittent economic life out over too great a distance. In short, it pays to collect commercial activity at specified nodes--the principal commercial blocks of Main Street, neighborhood crossings and other designated locations.

The primary area in need of recommitment and reinvestment is the four-block core area of Main Street. Renewed investment and coordinated management in Main Street could change the present economic stagnation into a vibrant center, reminiscent of downtown Warren a hundred years ago. Such an undertaking must be carefully approached to balance historic imagery with contemporary procedures, coordinated public and private parking, and needed commercial services. One of the keys to the success of a renewed Main Street is to restrict its length and to actively protect and refurbish historic structures over a much larger area.

The Town must clearly define the objectives of areas that may be subject to commercial development in the decades to come. A new commercial center can be realized only after careful consideration of location, integration with other civic needs and potential impacts on existing commercial strips. Attempts to change existing land zoned commercial to other uses will be difficult, as will any attempt to reduce the total current frontage allowed under commercial zoning. There are two locations where new service commercial activity could be advantageously positioned.

The first location is in the town core alongside the bike path behind Main and Child streets. This site, could be the catalyst for improved circulation, presenting more efficient rerouting possibilities for Rt. 114 while providing direct service streets to the new development (also usable by townspeople). Commercial activity in this area would also complement a renewed Main Street. Design proposals would have to take into account the small size of the area. A conceptual design for what this area might look like is presented in Figure 5.

The second area, located along a portion of Metacom could be approached as a renewal project. This site calls landscape guidelines and for innovative repackaging of current commercial land to achieve a more centralized facility. Impact on adjacent residential areas should be buffered.

5. Industrial Land Use: Much of Warren's economic success earlier in this century was tied to the presence of several mills and factories. Local industry has sharply declined and can no longer be counted on to provide a sizeable portion of either the tax base of the Town or the income base of its residents. As long as the remaining active facilities stay in operation, there will be work, taxes and positive expectations. On the other hand, with each closing or reduction in activity there is the need to plan for alternative uses and the passing of a way of life. The town must confront this reality by seeking new employment sources and by finding other uses for older industrial buildings.

Industry is scattered through much of the north-south axis of Town. Several large buildings that dwarf all other buildings around them dominate its presence. Newer facilities are generally isolated from the older nineteenth century mills. Clear siting and performance standards must be set for manufacturing, warehousing, service, and other related activities. These standards must consider the natural constraints of the land and the impact on adjacent land uses.

Empty or partially used mill buildings and the specter of additional unused mill buildings calls for planning to find alternative uses for the buildings and/or sites. Again, these plans should set clear performance standards. Development planning should occur for two critical sites; the central core between Child and Franklin streets and the north end of the Water Street waterfront. A wait and see policy will lead to incremental, piecemeal solutions, whereas careful planning can result in clear benefits to the image, character and tax base of Warren. (See the Economic Development Element.)

The PUD located at the northern portion of Market Street contains a variety of manufacturing and light assembly uses. This area, however, has been developed so as to be incompatible with adjacent land uses.

6. Mixed Use: A significant portion of Warren contains a persistent mixture of land uses resulting from the close proximity of residential development to industrial, commercial or other non-residential uses. This mix of uses has both positive and negative attributes. To a positive end, it contributes to a unique local vitality, especially in areas where buildings are close to each other. On the negative side, the extensive, intermittent nature of much of the commercial activities and the dominant position of old industry disrupts physical and visual cohesion of the landscape. This gives extensive portions of the town a bedraggled appearance.

In certain neighborhoods, such as the northern portions of Main and Metacom Streets and portions of Water Street, the combination of a residence and business is an existing two story structure makes a positive contribution to economic vitality, affordable housing and neighborhood character. The Town must determine strategies that differentiate mixed-use character that contributes to local vitality from that which results in confusing patterns and visual clutter.

7. Municipal and Institutional Land Use: The Town should aggregate its land holdings into critically located parcels of sufficient size to meet current and projected facility and recreation needs. Small towns often underestimate their need for land for new municipal facilities. Warren, due to its small size and extensive development, must take a long view of land needs to avoid extraordinary future land costs. This type of facilities planning could occur as part of a capital improvement plan.

8. Transportation Land Use: Warren is centrally located along north-south routes between Newport and Bristol to the south and Providence and Fall River to the north and east. Existing highways do only a marginal job of routing this traffic through Warren. Any major transportation improvements are likely to be detrimental to local traffic and the normal scale and pace of life. There are no easy solutions to area traffic problems. Therefore, the Town must persistently

monitor proposed traffic improvements to make sure that regional objectives are not met at the expense of local quality of life. The upgrading of School House Road and Metacom Avenue are two active DOT projects.

Two traffic problem areas will eventually need attention: the one-way loop at the northern end of Metacom Avenue (136) as it crosses Child Street (103), and the intersections of Market and Child streets with Main Street. In the first case, the existing configuration does not meet transportation standards for state highways and poses a bottleneck for traffic moving along this north-south corridor. In the second case, the two east-west roads meet Main with but one short block between them, thus having an impact on Main Street pedestrians and again posing a bottleneck to local and through traffic. (See the Circulation Element for additional detail.)

9. Open Space/Conservation: The Town has been blessed with many outstanding natural features, many of which are directly or indirectly protected from development: Directly, in that some have been set aside as dedicated conservation land; indirectly in that freshwater and coastal wetland laws provide minimum protection. In addition Warren's zoning ordinance requires that ISDS be set back 150 from the edge of wetlands. Structures on unsewered lots must be set back 100 feet from the edge of waterbodies and wetlands (Section 32-89 of the Warren Zoning Ordinance).

Five objectives can be isolated to further safeguard these assets. First, greater care should be taken in maintaining the character and natural quality of the edges of conserved sites, wetlands and open space. There are persistent examples of minor (and in some cases major) dumping at the ends of dead-end roads and elsewhere that encroaches on the edges of open spaces. Second, where there are views and/or access to the water, efforts should be made to acquire scenic easements or fee simple purchases. Warren has extremely scenic, but visually obscured water edges. Third, rural development guidelines should be developed to ensure that future residential development does not convert these areas to suburban housing tracts. Fourth, the Town should identify, acquire or otherwise protect key parcels that can buffer farmland, conservation sites, scenic vistas, and historic features. Fifth, since the Kickemuit River is a recreational and natural resource asset to the community, the Town should preserve and restore it as an SA waterbody. To this end Warren should manage development in the Kickemuit River watershed, by implementing appropriate best management practices and restricting and/or prohibiting activities that would jeopardize the rivers SA designation.

D. LAND USE CONTROLS

1. Introduction

The comprehensive plan, zoning regulations and subdivision regulations are the principal land use tools that a Town can use to foster economic development and provide adequate housing, while preserving historic, scenic and natural resources within its borders. Other techniques such as enterprise zones and affordable housing plans are supported by these regulations. When properly crafted and fairly implemented, they will enable the town to plan for, rather than react, to future development.

Planning objectives must be precisely defined and should state exactly what procedures and regulations must be developed. If the Town continues to react to development proposals and spot zone changes, it will be able to affect future land use only by guarded acceptance of proposals, delay tactics or litigation.

2. Existing Zoning

Warren recently amended its zoning and subdivision regulations so that they would be in conformance with state enabling legislation and the Warren Comprehensive Plan. Existing zoning adopted in 1997, (Figure 6) is based upon the land use categories and special districts delineated on the Future Land Use Plan. It differs substantially from the Town's previous zoning. Phase 1 of the zoning revisions completed in December 1994 brought Warren's Zoning ordinance into conformance with the RI Zoning Enabling Act. These changes primarily addressed the procedural, technical and legal requirements of the Zoning Enabling Act. Phase II zoning revisions, completed in October 1997, were designed to bring Warren's zoning into conformance with its comprehensive plan.

Prior to 1997, the regulations were based on ensuring an orderly process of development, but contained few strategies to protect the Town's unique features. Phase II amendments were intended to help implement the objectives of the Warren Comprehensive Plan, in particular the Future Land Use Plan, (Figure 7) and contain significant changes from the previous zoning. The principal changes include:

a. Redrafting of the zoning map to delineate new districts and changes in zoning designations, including: 1) Village Business District to replace General Business (town center and area near the Child Street and Metacom Avenue intersection), 2) a business district to replace Limited Business (Child Street, Metacom Avenue and Market Street commercial areas) 3) the addition of a Special District for the American Tourist site, 4) a Conservation District to replace Recreational Conservation and to include other protected natural areas, 5) the addition of a Farm Conservation District for protected agricultural areas, 6) and the addition of two overlay districts, a Residential Village Overlay District for the compactly developed areas of Touisset and a Kickemuit Reservoir Watershed Protection Overlay District.

b. Additions and changes to the zoning district use regulations, to identify uses in new districts and amend uses within existing districts.

c. Additions and changes to the zoning district dimensional regulations to provide for the calculation of allowable density, identify dimensional standards for the Residential Village Overlay District and amend dimensional regulations within the non-residential zoning districts.

d. Rewriting of the cluster development regulations.

e. Addition of several definitions.

f. Prohibition of certain uses, requirement for site plan review and the addition of site and design standards within the watershed of the Kickemuit Reservoir.

g. Elimination of the PUD district for future development.

In addition to these changes better methods for monitoring construction and increasing general code enforcement have been implemented.

Prior to being changed, district boundaries were carefully analyzed given existing land use, the vision of the future land use plan and the location of undeveloped land. New districts where created where the 1994 zoning categories, failed to meet the objectives of the Comprehensive Plan. The new Village Business District is designed to foster smaller scale business where the uses are in character and scale with the mixed-use and historic areas of town. The objective of the Special District is to encourage mixed-use development of the area and provide oversight through the site plan review process. The Residential Village Overlay District modifies the dimensional requirements on non-conforming lots of record within the overlay district in order to provide more reasonable setback and lot coverage requirements.

The existing zoning districts are summarized below:

1 *R40 Residence District:* This district contains areas of the town that are partially or fully developed at an approximate density of one (1) dwelling unit per acre, and areas for which this density is considered appropriate.

2. *R20 Residence District:* This district contains areas of the town that are partially or fully developed at an approximate density of two (2) dwelling units per acre, and areas for which this density is considered appropriate.

3. R*15 Residence District:* This district contains areas of the town that are partially or fully developed at an approximate density of three (3) dwelling units per acre, and areas for which this density is considered appropriate.

4. *R10 Residence District:* This district contains areas of the town that are partially or fully developed at an approximate density of four (4) dwelling units per acre, and areas for which this density is considered appropriate.

5. *R6 Residence District:* This district contains areas of the town that are fully developed at the highest density, an approximate density of seven (7) dwelling units per acre.

6. *Residential Village District:* This is an overlay district applied to certain areas of compact residential development in the Touisset area of Warren, for which modified dimensional regulations are applied to substandard lots of record (see Section 32-77.1).

7. *Village Business:* This district includes the central business area off Main Street as well as the business area off Child Street and Metacom Avenue. Permitted business uses are in character and scale with the mixed-use areas of town, and have less traffic impact and parking demand than more intensive business uses.

8. *Business:* This district includes all other commercial areas that are not in the Village Business District, and which are suitable for more intensive business uses, including those areas along major thoroughfares where businesses rely on easy vehicular access.

9. *Waterfront District:* This district includes that mixed-use area along and adjoining the Warren River for which water dependent uses are encouraged.

10. *Special District (American Tourister):* This district includes that area of developed waterfront along the Warren River which consists of property now or formerly held by the American Tourist Company. Comprehensive development involving mixed uses is encouraged, and site plan review of development proposals is required, according to the procedures contained in Section 32-61.

11. *Manufacturing District:* This district includes land in Warren currently used for manufacturing and related uses, and areas which are considered suitable for future development of manufacturing uses.

12. *Planned Unit Development:* This district contains that area of Warren rezoned by the Town Council pursuant to Article XXI of this ordinance, in effect prior to amendments dated December 1997.

13. *Farm Conservation District:* This district includes certain agricultural lands in Warren that are permanently protected against development, and are either currently or were previously in active agricultural use.

14. *Conservation District:* This district includes areas of protected coastal land and open space which are in public ownership, or owned by a private organization, for the purpose of maintaining it in its natural condition and/or protecting a plant or animal habitat area.

15. *Kickemuit Reservoir Watershed Overlay Protection District:* This is an overlay district applied to that area in Warren which comprises the watershed of the Kickemuit Reservoir, for which certain uses otherwise permitted in the underlying districts are prohibited, and for which site plan review is required.

Table 3 reflects the acreage assigned to each zoning category depicted in Figure 6. As previously mentioned the Existing Zoning Map assigned specific zoning categories to Future Land Use Plan. Generally speaking the R-40 zone includes the rural residential, the medium-low density residential and the residential village designations from the Future Land Use Plan. The R-20 zone

corresponds with medium density, R-15 with medium-high density and R-10 and R-6 with high-density residential. The recreation, conservation and open space designation on the Future Land Use Plan was mapped as the conservation district in the 1997 Zoning. Similarly, protected farmland was called the farm conservation district. Similar comparisons can be drawn between the special planning district, business districts, waterfront and industrial/manufacturing. Boundary modifications between the Future Land Use Plan and the Existing Zoning Map were based on inspection of the individual plat and lot maps. This may result in some acreage differences between Table 3 and 4.

Table 3, Warren Existing Zoning, October, 1997

ZONE	ACRES	PERCENT TOTAL
(VB) Village Business	71.31	1.80
(B) Business	136.43	3.45
(M) Manufacturing	143.77	3.64
(SD) Special District	16.57	.42
(W) Waterfront	28.64	.72
(PUD) Planned Unit Development	51.62	1.31
(R-6) Residential 6,000 SF	194.99	4.93
(R-10) Residential 10,000 SF	1002.94	25.37
(R-15) Residential 15,000 SF	49.48	1.25
(R-20) Residential 20,000 SF	180.43	4.56
(R-40) Residential 40,000 SF	1,474.74	37.31
(C) Conservation	390.04	9.87
(C) Farm Conservation	212.11	5.37
(W) Waterfront	28.64	.72
TOTAL	3,995.54	100.00

3. Growth Management, Zoning and Other Land Planning Techniques

Warren is in a period of transition from a small industrial town with nautical and agrarian roots to a town with historical character but an increasingly suburban pattern of development. To date, these two identities are in conflict with each other. Those who strive to retain the historic village and nautical identity are distressed by the development of the outlying areas with suburban tracts.

On the other hand, many see the hand of progress in the newer developments and are not particularly troubled by the loss of historic structures or farmland. It is important to realize that with the implementation of techniques such as a good cluster ordinance, rural development guidelines and commercial site plan review, development can proceed while still preserving the historic and natural fabric of the community. If Warren does not assume a pro-active approach to ensure that future development preserves town character, short-term market forces will prevail. This is likely to proliferate the continued encroachment of suburban tract housing and strip commercial development.

In order for growth management to work towns must set definitive goals within the broad guidelines laid out by the State. These goals must be realistic and include management procedures that will channel growth to those areas for which it is best suited. This must include consideration of the Future Land Use Plan, environmental constraints and the continued ability of the Town to provide services. Warren must actively incorporate natural and cultural standards for development into its ordinances. Such objectives should also include historic protection and rural development guidelines. When incorporated into future regulations, these standards will help to achieve the stated objectives of this plan. Figure 8 depicts an example of potential rural development standards that might be implemented. RIDEM's Rural Design Manual would provide helpful guidance to the Town in establishing such standards and guidelines. [3]

Alternatively, Warren could elect to meet new standards only when dictated to do so by State law. In this case, the types of development which will be attracted to Warren will be those which subscribe to low standards and quicker, but in the long run more modest, economic returns. Such development will erode the historic and rural character of Warren and encourage extensive and arbitrary building. The Town must avoid the "low road" and design its growth management strategies to include performance standards designed to protect Warren's countryside and its cultural and natural resources. Innovative techniques such as establishing sustainable build-out densities and the development of effective cluster development regulations appropriate design standards must be pursued. Through growth management the Town must also strive to retain its diverse economic profile and its ability to service its entire population. Technical information needed to assess the long term fiscal and environmental impact of growth on Warren must also be obtained. Changes should define specific objectives, based upon the comprehensive plan that correspond to Warren's sense of its identity and future.

V. FUTURE LAND USE

A. INQUIRY

In many respects the underlying patterns of Warren have been set. The primary land use/zoning question is *how will the town adjust to new life styles and their concomitant land uses within the context of a mostly built-out landscape?* This can be broken down into the following questions:

Will the town prevail in the protection and retention of its remaining farmland or will it allow

[3] RIDEM, 1998. Rural Design Manual:Scituate Reservoir Watershed Zoning Project-Part 2.

these lands to be converted to suburban housing?

Will Main Street be revived?

Will the town continue to provide sufficient recreational opportunities for its residents?

Will the town back up its awareness of the historic fabric by more comprehensive and sensitive protection of individual historic buildings and districts?

Will the town capitalize on its superb natural situation and consciously reveal its coastal attributes?

Will the Town direct development so as to preserve and restore the high quality of its waters?

Will the town slowly evolve from a mixed working and middle class town into a residential enclave inhabited primarily by newcomers who will increasingly demand a different program of services and amenities?

B. FUTURE LAND USE

In analyzing Warren's land use and zoning, certain concepts for improvement have been defined, enabling the town to prepare a framework for future land use designation, zoning categories and complementary performance standards. These land uses are depicted on the Future Land Use Map (Figure 7). This map is based on concepts presented in Warren's original 1991 draft Comprehensive Plan (specifically the Proposed Landuse /Zoning Map) as subsequently modified by the Planning Board and Zoning Revisions Committee during the Phase II Zoning revision process (1996-1997). It depicts a future vision or land use plan for Warren. Table 4 depicts the acreage for each of the proposed land use categories.

1. Discussion

Residential Zones: Subdivision regulations currently differentiate between major and minor subdivisions. Special regulations can be developed for minor subdivisions that provide for less restrictive development standards. Such small subdivisions are often called residential or family compounds and help to ensure affordable costs for starter homes. In the current economy, lot costs often determine the affordability of housing for first-time buyers. Properly designed, residential compounds also provide a tool for rural preservation. Larger subdivisions should be evaluated to determine projected capital costs to the Town and some form of impact fee assessment should be imposed.

The rural residential and the medium-low density residential categories represent areas where lower densities are desirable. The largest measure of protection is needed in those areas designated as rural residential. Preservation of the agricultural landscape in these areas is crucial to the implementation of the land use and economic development elements of the Comprehensive Plan. Within these areas two objectives should be coordinated: a) provide procedures,

dimensional requirements and rural design standards that would aid in preserving existing farm fields, farm complexes, nurseries, and other agrarian uses, and b) to allow compatible, residential development. Such development would be regulated by explicit performance requirements that address siting and other factors. The objective of this zone would be to encourage retention of a rural, agricultural and scenic pattern while still retaining the legal rights of the property owners. The site design and development criteria of this rural zone should increase value by offering a more marketable and attractive means of land development. The existing cluster ordinance has been rewritten so as to better achieve farmland and open space preservation objectives. Complementary site design and density standards to accomplish the above objectives are needed.

Specific categories as identified on the Future Land Use Plan are described below. Warren's zoning amendments of 1997 accomplished many of the objectives of the Future Land Use Plan.

Table 4, Acreage of Future Land Use, Warren 1997

CATEGORY	ACREAGE	PERCENT
Rural Residential	661.95	16.58
Medium-Low Density Residential	726.67	18.20
Medium Density Residential	180.43	4.52
Medium High Density Residential	49.48	1.24
High Density Residential	1188.67	29.77
Residential Village	111.85	2.8
Planned Unit Development	50.49	1.26
General Business	108.54	2.72
Village Business	111.85	2.8
Industrial/Manufacturing	166.49	4.17
Special Planning Area	16.57	.42
Waterfront	28.64	.72
Protected Farmland	203.8	5.10
Recreation, Conservation, Open Space	387.27	9.70
TOTAL	3992.7	100.00

Residential Village Overlay: This category recognizes those compactly settled areas of Town, such as Touisset Highlands and Touisset Point where the actual development is much more dense than the zoning district in which it is located. Dimensional requirements for buildings on non-conforming lots have been lessened and are based more on the spatial requirements of existing

residential patterns.

Mixed use and Non-Residential Zones in General: New categories and criteria are recommended for all mixed use and non-residential zones to more clearly articulate land use conditions and set more explicit standards for development allowed in these areas. Central to this strategy is the establishment of a site plan review ordinance that would direct the patterns of development within the different business zones and within the special district. The use table within the zoning ordinance should be periodically reviewed to ensure that it accommodates desired uses and prohibits undesired uses.

Village Business: There are two principle areas of village business (VB), one of which encompasses much of the downtown area. Performance criteria should define uses and dimensional requirements derived from the historic relationships already dominant in the area. Permitted uses within this zone should continue to be based on traditional categories but should have greater flexibility with regard to mixed uses, accessory residential units and small scale commercial activities. Special incentives should be considered to encourage investment in the reuse, restoration and/or refurbishment of older structures. The second area of VB is located on the north and south side of Child Street just east of Arlington Ave. Mixed-use residential (commercial use on first floor with a residence on second) should be a permitted use in VB areas.

Business: This category recognizes the character of Metacom Avenue. Regulations should set limits to expansion of the area while providing inducements for continued high intensity use. Performance standards should regulate curb cuts, parking, signs, landscaping and rebuilding. The intention should be to clearly encourage the economic vitality of this strip while improving overall appearance and safety by soliciting a plan for improvements in the area. A second area designated for future business use exists along Market Street. Development objectives in this area should recognize the special requirements of Market Street and establish standards for greater uniformity of development relative to the character of the road. As it continues to develop, this area should encourage moderately scaled, service-commercial and business uses that require secondary circulation, roadside buffers and overall consistency of development. The potential for a Market Street master plan with special design, landscape, siting and signage guidelines should be investigated.

Watershed Overlay Protection District: In 1997, Warren adopted the Kickemuit Resevoir Watershed Overlay District as part of its revised zoning ordinance. The Kickemuit Reservoir is an integral part of the drinking water supply system serving the Towns of Warren, Bristol and Barrington. The purpose of the district is to protect the potable surface water supply within the Town of Warren through the control, limitation or prevention of inappropriate development. Groundwater supplies in and around this area should be protected as well. Specifics regarding the overlay district are included in the Natural Resources Element.

2. Special Planning Districts

Reliance on devices such as zoning and subdivision ordinances will probably not be sufficient to rectify problems or initiate focused or targeted development. A Special Planning District is a tool

that enables the town to focus on particular geographic areas of town that has unique problems, attributes and resources. Once an area has been designated as a special planning district and special district plan can be developed. The plan, adopted as an addendum to the Comprehensive Plan, provides for more complete assessment and goal development than possible within the broader context of the Comprehensive Plan. The reasons for establishing special districts will vary with each specific district and will be affected by factors such as the demographic, economic, historic, environmental and circulation features of the area. In some cases, for example, it may be necessary for the Town to become an advocate for specific improvements through public-private partnership arrangements. One method to achieve this objective would be the creation of Special Planning Districts (SPD's) to attract private investment for revitalization and development projects. SPD's could provide an opportunity for economic growth, new jobs, revitalization in specified areas and other objectives, such as preservation of rural character. Special districts may be appropriate in the heart of Warren, in some of its business areas or in outlying locations.

A Main Street SPD could combine the back of the block development (to include parking and even affordable housing) with restoration of Main Street historic buildings, institution of coordinated promotion and management, and financial assistance (a revolving fund) for individual owners. The under-used land behind Child and Main streets should also be considered for designation an SPD. Such a district could predetermine the mix of uses, the preferred circulation system, performance standards (curb cuts, street trees, parking lot layouts, etc.). Attention must be given to use and reuse of the existing industrial buildings. In addition, the potential for intensified use of the area between Child and Franklin streets should be addressed. Consideration should be given to new service roads and improvement of the degraded wetland. The American Tourister site is another appropriate location for the establishment of a Special Planning District.

In the outlying area a Special Planning District could establish combined recreational, agricultural, conservation, and site development standards, as a means of preserving rural Warren, while at the same time facilitating compatible residential development. Such a district would be appropriate in the area designated as rural residential on the Future Land Use Plan (Figure 7). Rural preservation tools such as sustainable density, rural development criteria and varying road standards would help to achieve land use goals for this district.

The Town should consider the development of Special Planning Districts in the above mentioned areas. Future development in these areas would be guided through the development of town-prepared master plans.

C. FUTURE DEVELOPMENT POTENTIAL

1. Introduction

The following study, conducted as part of the Phase 2 Zoning Revisions, analyzes the future development potential of the Town based upon the 1997 zoning. The Future Land Use/Zoning as shown in the 1991 Comprehensive Plan, provided a vision for Warren and a starting point for the Zoning Revision Committee. Figures 6 and 7 Existing Zoning and Future Land Use, respectively, are a combination of the ideas presented in 1991, and the work of the Committee from 1995 to

1997. The Committee, composed of representatives of a variety of interests, boards and commissions was charged with bringing Warren's Zoning into conformance with its Comprehensive Plan.

The Future Land Use Map provides a guideline for future development, but contains no information on the specific densities of several of the proposed land use categories. Without this information it is impossible to predict expected densities at full build-out (development of the land to the maximum extent allowed under zoning).

Traditional zoning designed more for suburban communities does not adequately protect Warren's rural character or village centers. Whether conventional zoning or more progressive forms of zoning are implemented, zoning categories should be selected based on a clear understanding of what the regulations and resulting densities mean to the Town.[4]

2. Methods

A land use map based upon RIGIS 1988 data was prepared and updated to more accurately reflect 1997 conditions. A map of vacant, yet potentially developable land (PDL) was created from the land use map, by selecting developable land categories such as forest, brushland, agriculture and several miscellaneous categories grouped as other (urban vacant, transitional areas, mixed barren, etc.). Wetlands were not included in this coverage and protected farm, conservation and recreation lands were subsequently eliminated. Figure 9 depicts land, which for the purpose of this build-out analysis, was considered protected from development.

The final PDL coverage contains vacant, yet potentially developable land, grouped according to the following three categories; forest and brushland, agriculture, other (Figure 10).

The PDL coverage was then overlaid with the 1997 zoning, and a map of potentially developable land in each zoning category was developed (Figure 11). This map and information generated from it depicts how much land in any given zoning category is forest or brushland, agriculture, or other. ARC/INFO acreage calculations were then entered into a spreadsheet. A percentage allowance for roads was subtracted from the total acreage and the remaining amount divided by the minimum lot size for the principle use of the district. Ten or fifteen percentage allowance for roads was assigned depending on the overall size of the PDL parcels and the presence of existing roads.

3. Discussion

Table 5, presents the results of the build-out analysis under the existing zoning. It includes the total acreage and number of potential units at full build-out for each of zoning categories by the

[4] There is not always a direct correlation between minimum lot size and overall density. For example, in a cluster development lot sizes may be reduced, thereby providing more useable open space, protection of the environment and the reduction of development costs. However, the density, based upon the maximum number of units, would remain the same.

three land cover types. With a total of 3100 +- acres of land in Warren (excluding wetlands) 975 acres or approximately one third of the Town is subject to future development. Of this 594 or 61 percent is classified as agriculture, 327 acres (34 percent) as forest or brushland and 53 acres (5 percent) as other. Table 6 summarizes the information contained in Table 5.

As can be seen from Table 6, future residential development accounts for over 94 percent of Warren's potential growth. Assuming all single-family homes the total number of projected additional units is 1212. The largest potential for growth is in the R-10 and R-40 zones. According to the Future Land Use Plan (Figure 7) approximately sixty-four percent of the R-40 zone is designated as Rural Residential. Decreasing the build-out density in these areas would help to achieve rural and environmental protection goals and reduce fiscal impact. The Town is currently evaluating potential development scenarios in these areas. Other methods of reducing the fiscal and natural resource impacts of development would be are the purchase of development rights and the initiation of rural development standards.

Table 6, Summary of Warren's Potentially Developable Land Under Existing Zoning, 1997

ZONE	PDL ACREAGE	UNITS	PERCENT OF PDL TOTAL
B	33.32	87	3.42
VB	.52	2	0.05
M	18.04	33	1.85
PUD	6.12	15	.63
R-6	3.72	24	.38
R-10	113.95	422	11.69
R-15	17.29	43	1.77
R-20	58.79	109	6.03
R-40	722.81	614	74.18
TOTAL	974.56	1349	100.00
RESIDENTIAL SUBTOTAL	916.56	1212	94.05

To determine the estimated number of residential units at full build-out under existing zoning projected additional units must be added to existing figures. The 1990 US Census figures indicate that there were 4,786 housing units in Warren. Since that time an additional 177 have been

constructed bringing the total estimated 1997 units to 4,963.[5] If projected single family residences are added to this figure there would be an estimated 6,175 residential units at build-out and an estimated population of 15,252. This does not, however, consider the impact of in-fill development or the construction of duplexes or multi-family units.

According to the 1990 census only 2,413 or 50.4 percent of the 4786 housing units in Warren were detached single-family homes. With the exception of the R-15 zone approximately half again as much land is required when constructing a duplex. Under the existing zoning duplexes are allowed with a special use permit in R-20, R-15, R-10 and R-6. Duplexes require 30,000 SF in R-20, 15,000 SF in R-15, 15,000 SF in R-10 and 8,000 SF in R-6. In keeping with the other zones, the minimum area requirement for duplexes in R-15 should be proportionately increased.

It is a well-documented fact that residential development escalates the costs of providing education and other government related services.[6] By way of example, Warren's average, annual (1995) cost to educate a student was $7,580,[7] yet the average annual tax on a single-family residence for the same time period was $2110. For a household with one child in the school system, this represents a deficit to the Town of $5470. Decisions regarding future land use in the Town should consider development related costs and the ability of the Town to provide needed services such as water, sewer, police and fire protection, etc.

Non-Residential Development

The Special District (American Tourist) and the Waterfront zones did not depict any potentially developable land at the mapping scale used. This is not to say that re-development of the SD or reuse of buildings within the waterfront area would not increase the number of businesses or residences in Warren. In addition, the computer analysis underestimated the potentially developable land in the PUD[8]. Given that most businesses, however, have been combining lots, the number of projected units (17) is a reasonable estimate. The greatest potential for non-residential growth is in the business and manufacturing zones with an estimated unit increase of 58 and 46 respectively.

[5]Number of additional lots since 1990 is from personal Communication, Warren Zoning Officer, 1997. There is some discrepancy between the census' estimate for residential units and the tax assessor's information. For purposes of this study, the 1990 Census data was used for baseline documentation.

[6] Kevin Kasowski, February 1993. As summarized in "The Costs of Sprawl Revisited" PAS Memo, American Planning Association, Washington D.C.

Thomas, Holly, 1991. *"The Economic Benefits of Land Conservation"*. Dutchess County Planning Department. Technical Memo distributed by the Southern New England Forest Consortium.

Southern New England Forest Consortium, Inc. (in progress). *"Cost of Community Services for Connecticut, Massachusetts and Rhode Island Towns"*.

[7]Roger Gaspar, Administrator 1997. Bristol Warren Regional School District.

[8]The Zoning Officer estimates that as of July 1997 there are 37 vacant industrial lots in the PUD ranging in size from 15,000 SF to 20,000 SF.

VI. LAND USE POLICIES AND ACTIONS (LAND USE PLAN)

TOWN CHARACTER:

Policy 1: Preserve town character as embodied by settlement patterns and historic buildings, natural assets including extensive wetlands and rivers, farmland, and other open space, while allowing for needed development.

Policy 2: Preserve the scale of the town as characterized by the size and massing of its buildings, pattern of contained developed areas separated by relatively open spaces, centralized downtown, municipal downtown and municipal area, and historic district.

Policy 3: Ensure the compatibility of contiguous land uses without sacrificing the diverse pattern of uses in the town.

> **Action 3.1:** Strengthen enforcement of existing codes governing maintenance of landholdings; examine code for possible deficiencies and remedy them; encourage lot and neighborhood beautification. [Planning Board, Town Council]
>
> **Action 3.2:** Rewrite the Zoning Ordinance and Subdivision Rules and Regulations to reflect the Comprehensive Plan; incorporate mechanisms for special planning districts; and implement watershed protection and buffering requirements. (Completed in 1997). Continue to review and amend town land use regulations as deemed necessary.
>
> **Action 3.3:** Tighten the process of land use review and development permitting by instituting higher and more comprehensive standards and restricting special use permits, variances and zone changes. Zone changes, particularly those requesting a more intense use of the land than planned for in the comprehensive plan, must be shown to be unquestionably in conformance with all aspects of this plan. [Planning Board, Town Council]
>
> **Action 3.4:** Provide adequate funding for professional support to Town Council and the various boards and commissions in order to accomplish the above policies and actions.[*Planning Board, Town Council]

Policy 4: Ensure the recreational and natural value of Warren's Rivers.

> **Action 4.1:** Direct development in the areas surrounding the Kickemuit River and its tributaries in such a manner as to encourage the use of Best Management Practices and restrict any land use which would cause degradation of its high water quality.
>
> **Action 4.2**: Develop buffer guidelines for Warren's Rivers and streams.
>
> **Action 4.3:** Work with the Natural Resource Conservation Service, Cooperative Extension, the Eastern Conservation District and other appropriate groups to provide

technical and financial assistance to farmers in the implementation of agricultural best management practices that are designed to protect ground and surface water quality.

TOWN IMAGE:

Policy 5: Increase and extend public access to and views of the water and harbor.

Action 5.1: Establish policy and act to acquire key water view and public access parcels. Provide funding and or grant/writing assistance to accomplish this action.[Conservation Commission, Town Council, Planning Board]

Action 5.2: Rewrite the subdivision regulations to require consideration of scenic views to and across the water and the Town's skyline as seen from the water.

Policy 6: Eliminate disturbed and under-used urban land areas by incorporating them into adjacent revitalized land uses. Where appropriate address improvement of these areas through the development of master plans for the special planning districts as specified in this element.

Policy 7: Encourage and enforce private maintenance of land holdings, including lawn maintenance and removal of trash, dormant automobiles and other potential eyesores.

Action 7.1: Enforce anti-dumping and all building code and zoning ordinances. (Building Inspector)

Policy 8: Provide procedures and incentives to revitalize commercial and service/industrial centers at specified locations in accordance with guidelines which will improve the town image.

Action 8.1: Act to eliminate billboards. [Town Council, Planning Board]

Action 8.2: Establish a site plan review procedure with specific landscape, design and performance standards for the building and upgrading of commercial and industrial sites.

RESIDENTIAL LAND USES:

Policy 9: Establish and update procedures that will ensure a diverse mix of housing and recreational opportunities for all economic levels in accordance with the planning objectives of each Profile Area. (See also Housing Element.)

Action 9.1: Revise zoning to include provisions for density adjustments which allow secondary units, apartments and duplexes in areas where utilities are readily available and environmental conditions will accommodate the additional units. (Completed in 1997).

Action 9.2: Encourage reuse of older buildings by conversion of suitable structures to multi-unit housing; such units should meet applicable codes and be serviced by necessary utilities. Investigate off-site parking for downtown units.

Action 9.3: Establish clear criteria for determining allowable residential densities based on the availability and affordability of utilities, emergency vehicle access, the prevailing development pattern of each area, and the environmental carrying capacity of the land, based on soil and groundwater conditions, flood hazard, impact on surface waters, depth to bedrock, etc.
[Planning Board for three above actions]

OTHER LAND USES:

Policy 10: To develop some cohesive land use patterns and reduce incompatibility of conflicting land uses, concentrate commercial uses and industrial uses and improve circulation to facilitate service access to these areas.

Policy 11: Improve the recreational and industrial uses of the waterfront while protecting and enhancing the image of the harbor.

POLICIES BY PROFILE AREA:

Profile Area 1

Policy 12: Clarify the distinction between commercial, service/industrial and residential land uses, and improve road edge conditions.

Action 12.1: Reestablish zoning boundaries, limit strip commercial uses and require setbacks and buffers. [Town Council, Planning Board]

Action 12.2: Monitor the development of the PUD at the northern edge of town that includes parts of Profile Areas 1 and 2. This district should retain open space while allowing development that meets specific standards--such as for setbacks and vegetative buffers. The historic integrity of structures and landscapes such as the Levi Haile House and associated buildings) should be preserved when incorporated into any development plans. In addition development should be well sited and provide access to the nearby coastline. [Town Council, Planning Board]

Policy 13: Establish and maintain a distinctive and attractive "gateway" into Warren from the north along Market Street.

Profile Area 2

Policy 14: Protect the fragile water's edge and wetlands and provide visual access to the water.

Profile Area 3

Policy 15: Support careful development that defines residential areas while retaining the open character of existing farms and fields.

Action 15.1: Develop performance standards for maintaining the environmental, agricultural and visual integrity of this area.

Policy 16: Protect the watershed.

Action 16.1: Require substantial buffers between active land uses and vulnerable watershed lands which are monitored. (Completed in 1997.)

Action 16.2: Establish watershed and aquifer protection districts. (Watershed Protection District adopted in 1997).
[Both of the above actions Conservation Commission, Bristol County Water Authority]

Profile Area 4

Policy 17: Clarify local circulation patterns and concentrate suburban-type development in this profile area in order to avoid sprawl into outlying areas.

Action 17.1: Require all future development to conform to a rational (connecting) secondary circulation pattern. [Town Council, Planning Board]

Profile Area 5

Policy 18: Define the character and use(s) of the area, considering potential industrial use of the large vacant area behind Main and Child streets.

Action 18.1: Develop a master plan for this profile area which clearly defines land uses, improves circulation and implements special development standards. Explore the possibility of locating an industrial park within this area, with realignment and connection of roads. [Town Council, Planning Board]

Profile Area 6

Policy 19: Revitalize Main Street, paying special attention to its small town, historic character.

Action 19.1: Establish a working association of Main Street business owners and concerned citizens to explore options for revitalization of Main Street; research national "Main Street" program(s).

Action 19.2: Devise a Main Street strategy which includes renewal of existing buildings,

conversion of upper floors to residential use, overall street management, and concentration of commercial land uses. Consider hiring a Main Street manager to coordinate promotion, renovation and marketing. (See also Economic Development Element.)

Policy 20: Rededicate and expand a preservation planning process for this mixed-land use historic area; consider establishment of a Historic District Commission. (See also Economic Development and Natural & Cultural Resources Elements' Policies and Actions.)

Policy 21: Investigate procedures that will simultaneously stimulate waterfront businesses, increase pedestrian access to the water and ensure retention of a nautical appearance.

Action 21.1: Institute and encourage use of tax credits in historic restoration and rehabilitation. [Town Council, Historic District Commission]
(See also the Natural & Cultural Resources and Economic Development elements.)

Profile Area 7

Policy 22: Retain this residential area as a wooded, waterside enclave.

Action 22.1: Retain tree, vegetation and wall buffers along Main Street and retain street trees within the area.

Action 22.2: Provide and maintain ROWs to the water.
[Conservation Commission, Planning Board & Town Council for two above Actions]

Profile Area 8

Policy 23: Encourage investment in and overall management of the area; Define the commercial extent of this area, determining its limits with respect to adjacent residential neighborhoods.

Action 23.1: Study the commercial land use within this area to set parameters for its growth and change and to regulate encroachment on abutting neighborhoods.
[Chamber of Commerce, Town Council, Planning Board]

Action 23.2: Solicit a development plan for this area that provides inducements for continued high intensity use. Performance standards should regulate curb cuts, parking, signs, landscaping and rebuilding. The intention should be to clearly encourage the economic vitality of this strip while improving overall appearance and safety by soliciting a plan for improvements in the area.

Profile Area 9

Policy 24: Protect the homogeneity of this neighborhood while improving its internal and through circulation.

Action 24.1: Examine the viability of connection of interior roads to promote circulation within the neighborhood [Warren DPW, Town Council, Planning Board]

Profile Area 10

Policy 25: Protect the character of this neighborhood while providing increased views of and access to the water.

Action 25.1: Maintain existing access and establish new ROWs to the water. [Conservation Commission, Town Council, Planning Board]

Action 25/2: Require adequate buffers between development and the water to maintain visual access and water quality. [Conservation Commission, Town Council, Planning Board]

Profile Area 11

Policy 26: Develop regulations that will retain farmland and limit residential construction in accordance with cultural and natural values associated with Touisset.

Policy 27: Protect wetland and coastal features and retain and define buffers for older water's edge enclaves: Touisset Highlands and Coggeshall.

Action 27.1: Establish Special Development District(s) with standards which limit and concentrate development, require setbacks and vegetative buffers, and protect farmland as well as farm buildings while allowing residential growth in accordance with specific performance standards. [Town Council, Planning Board]

Action 27.2: Ensure adequate public access to the water. [Town Council, Planning Board]

Action 27.3: Ensure that development is directed in such a manner as to protect the use of the Kickemuit River for shellfishing and recreational activities.

VII. IMPLEMENTATION SCHEDULE

	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 1: Preserve town character	*			PB, TC
Policy 2: Preserve town scale	*	*		PB, TC
Policy 3: Promote compatibility of land uses	*	*	*	PB, TC
Action 3.1 Enforce existing codes	*			PB, TC

Action 3.2 Rewrite Zoning Ordinance and Subdivision Rules & Regulations		*		PB *(on-going procedure)*
Action 3.3 Establish land use standar*ds*		*		PB, TC
	ASAP	**5 yrs**	**20 yrs**	**Responsible Parties**
Action 3.4 Provide funding for professional support to boards and commissions to accomplish policies and actions.	*			PB, TC
Policy 4: Protect Warren's rivers	*			
Action 4.1 Implement BMP's and land use restrictions		*		TC,PB, PWD
Policy 5: Preserve public access and unobstructed views to water		*	*	TC, CC
Action 5.1 Acquire water-view parcels		*	*	TC
*Action 5.*2 Revisions to subdivision rules and regulations	*	*		PB, TC, design consultant, MHA, WPS
Policy 6:	*			PB, CC, WLCT
Action 6.1 Area between Child and Franklin and Arlington and Railroad		*		PB, CC, WLCT
Policy 7: Encourage and enforce lawn maintenance and removal of trash, dormant automobiles	*	*		Building Inspector
Action 7.1 Enforce anti-dumping and all building code and zoning ordinances.	*	*	*	Building Inspector
Policy 8: : Provide procedures and incentives to revitalize commercial and service/industrial centers	*	*		[Town Council, Planning Board]
Action 8.1 Act to eliminate billboards.		*		Town Council, Planning Board
Action 8.2 **:** Establish a site plan review procedure	*			PB,TC
Policy 9: Establish and update procedures that will ensure a diverse mix of housing and recreational in accordance with the planning objectives of each Profile Area	*	*	*	
Action 9.1 Revise zoning to include provisions for density adjustments	*	*		PB, TC, CC
Action 9.2 Encourage reuse of older buildings by conversion of suitable structures to multi-unit housing	*	*	*	PB, TC
Action 9.3 Establish clear criteria for determining allowable residential densities				
Policy 10: Develop cohesive land use patterns reducing land use incompatibility concentrate commercial uses and industrial uses and improve circulation to facilitate service access to these areas.		*		Town Council, Planning Board

Policy 11: Improve recreational and industrial uses of the waterfront protecting and enhancing the image of the harbor.		*		Town Council, Planning Board, Harbor Commission
	ASAP	**5 yrs**	**20 yrs**	**Responsible Parties**
Policy 12: Clarify the distinction between commercial, service/industrial and residential land uses, and improve road edge conditions.		*		Planning Board, Town Council, Dept. Public Works
Action 12.1 Reestablish zoning boundaries, limit strip commercial uses and require setbacks and buffers	*			Town Council, Planning Board
Action 12.2 Monitor the development of the PUD retaining open space while allowing development that meets specific standards.	*	*	*	Town Council, Planning Board
Policy 13: Establish and maintain a distinctive and attractive "gateway" into Warren from the north along Market Street.		*		Town Council, Dept. of Public Works
Policy 14: Protect the fragile water's edge and wetlands and provide visual access to the water.		*		Conservation Commission, Town Council
Policy 15: Support development that defines residential areas while retaining the open character of existing farms and fields.	*	*		Planning Board, Town Council
Action 15.1 Develop performance standards for maintaining the environmental, agricultural and visual integrity of this area.	*			PB, TC
Policy 16: Protect the watershed.	*			CC, Bristol County Water Authority
Action 16.1 Require substantial buffers between active land uses and vulnerable watershed lands.	*			CC, Bristol County Water Authority
Action16.2 Establish watershed and aquifer protection districts		*		CC, Bristol County Water Authority
Policy 17 Clarify local circulation patterns	*	*	*	Town Council, Planning Board
Action 17.1 Require all future development to conform to a secondary circulation pattern		*	*	Town Council, Planning Board
Policy 18 Define the character and use(s) of industrial area behind Main and Child streets.	*			Town Council, Planning Board
Action 18.1 Develop a master plan for Profile 5		*		Town Council, Planning Board
Policy 19 Revitalize Main Street	*	*	*	Economic Development Coordinator, Town

				Council
	ASAP	**5 yrs**	**20 yrs**	**Responsible Parties**
Action 19.1 Establish a working association with Main Street business owners and concerned citizens	*			Main Street/Econ. Dev. Coordinator
Action 19.2 Devise a Main Street strategy	*	*		Town Council, Econ. Dev. Coordinator
Policy 20 Expand preservation planning for mixed-land use historic area		*	*	Town Council, Planning Board
Action 20.1 Establish Historic District Commission	*			Town Council
Policy 21 Investigate procedures to stimulate waterfront businesses, and increase pedestrian access to the water		*	*	Historic District Commission, Tax Assessor
Action 21.1 Institute tax credits in historic restoration and rehabilitation.		*		Town Council, Historic District Commission
Policy 22 Retain waterfront residential area as a wooded, waterside enclave.	*	*	*	Conservation Commission, Planning Board & Town Council
Action 22.1 Retain tree, vegetation and wall buffers along Main Street and retain street trees within the area. CC, TC, PB	*	*	*	CC, TC, PB
Action 22.2 Provide and maintain ROWs to the water.	*	*	*	CC, TC, PB
Policy 23 Encourage investment in waterfront area.				Chamber of Commerce, Town Council
Action 23.1 Study the commercial land use and regulate encroachment on abutting neighborhoods.		*		Chamber of Commerce, Town Council, Planning Board
Action 23.2 Solicit a development of a plan for this area encouraging economic vitality while improving overall appearance and safety		*	*	Town Council, Planning Board
Policy 24 Protect the homogeneity of waterfront neighborhood while improving circulation.	*	*		Town Council, DPW
Action 24.1 Examine the viability of connection of interior roads to promote circulation within the neighborhood		*		DPW, Town Council, Planning Board
Policy 25 Protect the character of this neighborhood while providing increased views of and access to the water.	*	*		Conservation Commission, Town Council, Planning Board
Action 25.1 Maintain existing access and establish new ROWs to the water.	*		*	CC, TC, PB
Action 25.2 Require adequate buffers between development and the water to maintain visual access and water quality.		*		CC, TC, PB
	ASAP	**5 yrs**	**20 yrs**	**Responsible Parties**

Policy 26 Develop regulations that will retain farmland and limit residential construction in accordance with cultural and natural values associated with Touisset.		*	*	Planning Board, Town Council, Conservation Commission
Policy 27 Protect wetland and coastal features in Touisset Highlands and Coggeshall.				Town Council, Planning Board, Conservation Commission
Action 27.1 Establish Development District(s) with standards which limit development, require setbacks and vegetative buffers, protect farmland and farm buildings				Town Council, Planning Board
Action 27.2 Ensure adequate public access to the water. Town Council, Planning Board.				Town Council, Planning Board
Action 27.3 Protect the use of the Kickemuit River for shellfishing and recreational activities.				TC, PB, CC

***Comprehensive Plan Committee Reports*, 1990.**

Warren, Rhode Island Comprehensive Community Plan, Warren Planning Board, Rhode Island Development Council.1966.

Recreation, Conservation, and Open Space Plan, Recreation, Conservation, and Open Space Plan subcommittee of the Warren Conservation Commission, 1990.

WARREN COMPREHENSIVE PLAN
OPEN SPACE AND RECREATION ELEMENT

June 2003

I. INTRODUCTION 1

II. TOWN OF WARREN Recreation, Conservation and Open Space Plan 2

III. IMPLEMENTATION PLAN 3

Following RCOS

I. INTRODUCTION

The Warren Recreation, Conservation and Open Space Plan (1990, 1995) provides an inventory of existing recreational facilities and natural resources and serve as the town's guide for acquiring and protecting said facilities and resources. The Comprehensive Plan acknowledges the Town of Warren Recreation, Conservation and Open Space Plan (RCOS), which was approved by the State of Rhode Island in 1990 (and amended in 1995) as the basis for the Open Space and Recreation Element.

It is the State approved Town of Warren Recreation, Conservation and Open Space Plan, included in and referenced by this Comprehensive Plan, which will serve to meet the State mandated criteria for the Open Space and Recreation Element of the Town of Warren's Comprehensive Plan.

For action items, inventory, policies, goals and initial implementation, please refer to the RCOS document, but other action items have been incorporated as part of this element's overall implementation schedule to address areas not covered by the RCOS and are denoted as such.

The detailed implementation plan included as part of this element follows the general needs as presented in the Comprehensive Plan approved by the Warren Town Council in 1991, and compliments the RCOS.

II. TOWN OF WARREN RECERATION, CONSERVATION & OPEN SPACE PLAN

The following document is the Town of Warren Recreation, Conservation and Open Space Plan (RCOS), which was approved by the State of Rhode Island in 1990 (and amended in 1995). This plan is presented in its entirety to serve as the primary goals and objectives for the Town of Warren as it pertains to recreation, conservation and open space.

III. IMPLEMENTATION PLAN

Beyond the general endorsement of the RCOS Plan, the Warren Comprehensive Plan emphasizes increased visibility and awareness of natural edges and amenities in town. The Plan strives to strengthen some provisions of the earlier study. The implementation plan set forth in this Element is to be utilized in adjunct with the goals, policies and actions of the RCOS document included as the basis for this element. The policies set forth in this section parallel and are drawn directly from the Goals, Recommended Actions and Implementation of the RCOS Plan, as well as the Warren Comprehensive Plan approved by the Warren Town Council in 1991.

Warren Comprehensive Plan - 1991	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 1 Preserve Warren's landscapes and diverse natural systems **see RCOS Goal I*	*			Town Council, Planning Board
Action 1.1 Require open space dedication through town subdivision regulations.		*		Town Council, Planning Board
Action 1.2 Make provisions for "payment in lieu of" or affordable housing allowances as alternative to open space dedication where applicable.		*	*	Town Council, Planning Board
Action 1.3 Amend zoning to include strict regulations pertaining to green space within commercial development.	*			Town Council, Planning Board
Policy 2 Connect recreation, conservation and open space areas through green-belt system. **see RCOS Goal I, Action 2*			*	Town Council, Conservation Commission, Warren Land Conservation Trust
Action 2.1 Provide neighborhood recreation and environmental education	*			TC, CC
Action 2.2 Acquire lands through purchase or easement to provide pathways connecting preserved lands	*	*	*	TC, WLCT
Policy 3 Develop regulations and evaluation criteria for the protection of buffers, existing green space and recreational opportunities **see RCOS Goal VI, IX, XI, XII*	*			Town Council, Planning Board, Conservation Commission
Action 3.1 Revise Subdivision Regulations and Zoning Ordinance to protect farmland, wetlands, environmental habitats		*		TC, PB
Action 3.2 Work with neighboring towns to preserve natural areas	*	*	*	TC, CC, Warren Land Conservation Trust
Policy 4 Encourage innovative land development **see RCOS Goal I, Action 5*	*			PB, CC
Action 4.1 Adjust land use regulations to coordinate development with natural resource protection		*		Planning Board, Town Council

Warren Comprehensive Plan – 1991	ASAP	5 yrs	20 yrs	Responsible Parties
Action 4.2 Provide incentives through land use regulations that negotiate the protection of resources.		*		Town Council, Planning Board
Policy 5 Initiate tree planting program **see RCOS Goal I, Action 6*	*			Town Council
Action 5.1 Coordinate public and private efforts to replace dead and diseased trees	*	*	*	Town Council, Tree Commission
Action 5.2 Plant new trees in key areas		*		Dept. Public Works, Tree Commission
Action 5.2 Require the planting of trees in all residential and commercial developments.	*			Town Council, Planning Board
Action 5.3 Form tree commission and create tree commissioner position	*			Town Council
Policy 6 Preserve and restore water quality, fresh and salt water areas **see RCOS Goal 2*	*	*	*	TC, PB, CC, DPW
Action 6.1 Regulate run-off, nonpoint source pollution and source specific pollution	*	*		TC, PB, PWD
Policy 7 Regulate use of road salt and chemicals	*			DPW
Policy 8 Manage and protect floodplains **see RCOS Goal XI*	*			Planning Board, DPW
Action 8.1 Protect and enhance natural floodplain function to protect property	*	*	*	DPW, CC
Action 8.2 Adopt standards that meet the National Flood Insurance Program	*			Town Council, Planning Board
Action 8.3 Amend land use regulations to accommodate development under requirements of 100 year floodplain.	*			TC, PB
Policy 9 Protect wetlands **see RCOS Goal IV*	*	*	*	TC, PB, CC
Action 9.1 Regulate land uses that threaten and degrade wetlands	*			TC, PB
Action 9.2 Establish regulations protecting upland buffers to wetlands	*			PB, TC, CC
Action 9.3 Revise Zoning to protect wetland areas through development restrictions		*		PB, TC
Policy 10 Protect Kickemuit Reservoir, its watersheds and tributaries **see RCOS Goal V*	*	*	*	TC, PB, CC
Action 10.1 Encourage and publicize need for water conservation	*	*		CC, Kickemuit River Council
Action 10.2 Work with Bristol County Water Authority to implement water protection plan.		*		Town Council, BCWA
Action 10.3 Encourage BCWA to continue upgrading maintenance system.	*			TC, CC
Action 10.4 Coordinate with neighboring towns to protect watershed.		*		TC, CC, Kickemuit River Council
Action 10.5 Institute run-off control measures through regulation.	*			TC, Planning Board

Warren Comprehensive Plan – 1991	**ASAP**	**5 yrs**	**20 yrs**	**Responsible Parties**
Action 10.6 Create watershed protection district for Kickemuit Reservoir.	*			TC, PB
Policy 11 Preserve water views **see RCOS Goal VI, Action 4*	*			TC, PB, CC
Action 11.1 Protect scenic, rural and historic vistas as resources		*		CC, PB
Action 11.2 Review zoning and subdivision regulations to include landscape inventories.		*		TC, PB
Action 11.3 Amend land use regulations to encourage protections of waterfront	*			TC, PB
Action 11.4 Implement development controls including size and height of buildings along water vistas	*			TC, PB
Policy 12 Protect coastal lands through acquisition/development rights. **see RCOS Goal VII*	*	*	*	TC, CC, Warren Conservation Land Trust
Action 12.1 Coordinate with private organizations to purchase rights of way to Kickemuit, Palmer and Warren Rivers.		*	*	TC, CC, Warren Conservation Land Trust
Action 12.2 Delineate all established rights-of-way to water and protect.	*			CC, PB, DPW
Action 12.3 Require large-scale developments to provide water access	*			TC, PB
Policy 13 Encourage continued agricultural use of existing farmland. **see RCOS Goal VIII*	*	*	*	CC, PB, TC
Action 13.1 Promote existing farm and open space tax incentives.	*	*	*	Tax Assessor, TC, CC
Action 13.2 Provide planning assistance to farmers involved in development right offers.		*		PB, TC
Action 13.3 Initiate accessory uses that will enhance value of farm land to farmer.		*		PB, TC
Policy 14 Preserve, protect and enhance historic and cultural archaeological sites **see RCOS Goal VI*	*	*		WVHDC, CC
Action 14.1 Amend land use regulations to encourage preservation of historic sites		*		TC, PB
Action 14.2 Create inventory of historic sites and vistas.			*	WVHDC
Action 14.3 Establish Historic District	*			TC, WVHDC
Policy 15 Identify and protect wildlife habitats **see RCOS Goal X*		*		CC
Action 15.1 Create inventory of existing habitats and species.		*		CC
Action 15.2 Create regulations designed to protect areas of natural habitats.	*	*		TC, PB, CC
Action 15.3 Work to restore damaged habitat areas			*	TC, CC

Warren Comprehensive Plan – 1991	**ASAP**	**5 yrs**	**20 yrs**	**Responsible Parties**
Policy 16 Provide active and passive recreational areas for all town residents. **see RCOS Goal XI*	*	*	*	TC
Action 16.1 Upgrade existing outdoor recreational facilities.		*		TC, DPW
Action 16.2 Develop community center for indoor recreation and cultural activities.			*	TC, Recreation Department, DPW
Action 16.3 Acquire open space for recreational purposes.			*	TC, CC
Action 16.4 Improve access to existing shoreline rights-of-ways.		*		TC, DPW
Action 16.5 Enhance access to water ways			*	TC, DPW
Action 16.6 Investigate expansion of bike path to other abandoned railways.		*		TC, PB, CC
Policy 17 Develop tools and procedures for conservation, preservation and development of natural resources. **see RCOS Goal XII*	*			PB, CC
Action 17.1 Coordinate review process of land development through all pertinent town boards and commissions.	*			TC, PB, CC, DPW, Recreation Department

Refer to the RCOS for specific implementation programs

Warren RCOS Plan – 1990, 1995	**ASAP**	**5 Years**	**20 Years**	**Responsible Parties**
Goal I: Preserve Warren's natural character, using open space **see WCP 1991 Policies 1 &2*	*	*	*	Conservation Comm, Planning Board, Town Council
Action 1 Require new developments to dedicate opens space or pay fee in lieu of.		*		PB, TC
Action 2 Create Greenbelt System			*	CC, TC
Action 3 Reevaluate regulation as relate to open space and buffers		*		PB, TC
Action 4 Work with neighboring towns to preserve natural areas.	*			CC, TC
Action 5 Encourage creative land development.	*			PB, TC
Action 6 Initiate tree planting program	*	*	*	Tree Commission *(on-going)*
Goal II: Preserve and restore water quality of fresh and salt water areas. **see WCP 1991 Policy 6*	*			Kickemuit River Council, RIDEM, DPW, TC
Action 1 Adopt and implement Harbor Management Plan	*			Harbor Management Commission, TC
Action 2 Institute measures to control run-off pollution	*			PB, TC
Action 3 Regulate the use of road salt and chemicals	*			Department of Public Works
Goal III: Manage Floodplains **see WCP 1991 Policy 8*	*	*	*	DPW, PB, CC
Action 1 Adopt and enforce development standards that exceed NFIP		*		PB, Building Official, TC

Warren RCOS Plan – 1990, 1995	ASAP	5 Years	20 Years	Responsible Parties
Action 2 Adopt policy preventing extension of sewer, water & highways in floodplain areas		*		DPW, TC, PB
Goal IV: Protect natural function of wetlands **see WCP 1991 Policy 9*	*			DPW, PB
Action 1 Regulate land uses that threaten wetland areas	*			PB, ZBR, TC
Action 2 Require upland wetland buffers	*			PB, TC
Action 3 Revise zoning to exclude wetlands from density calculations	**Complete**			TC, PB
Action 4 Extend tax incentives to property owners providing buffers around wetlands	*			TC, PB
Goal V: Protect Kickemuit Reservoir and its watershed **see WCP 1991 Policy 10*	*	*	*	TC, CC, Various State Agencies
Action 1 Modify state building/plumbing codes to require water-conserving amenities			*	State agencies, State Legislature
Action 2 Encourage BCWA to create reward price structure for conservationists		*		BCWA, TC
Action 3 Encourage BCWA to initiate effective maintenance procedures	*			BCWA, TC
Action 4 Coordinate with neighboring communities to preserve Kickmuit Watershed	*			TC, CC
Action 5 Institute measures to control run-off pollution	*			PB, DPW, TC, CC
Action 6 Create Watershed Overlay District for Kickmuit Reservoir	**Complete**			PB, TC
Goal VI: Preserve scenic, rural , historic and marine vistas as important resources **see WCP 1991 Policies 3, 11, 14*	*			TC, CC
Action 1 Review zoning/ subdivision regs. to implement RI Landscape Inventory		*		PB, TC
Action 2 Require protection of scenic vistas	*	*		PB, TC
Action 3 Create Scenic Road District			*	TC
Action 4 Consider Narragansett Bay horizon as scenic vista and to protect through siting and height requirements	**Complete**			PB, TC
Goal VII: Preserve coastal land for open space/passive recreation. **see WCP 1991 Policy 12*	*	*	*	Open Space Commission, TC
Action 1 Preserve existing right-of-ways	*			TC
Action 2 Require public access to all new and expanded marine facilities		*		TC, PB, ZBR
Action 3 Require large-scale development to provide public waterfront access		*		PB, TC
Action 4 Establish land acquisition fund to purchase flood sensitive areas			*	TC, Open Space Commission
Goal VIII: Encourage continued agricultural use of prime farmland **see WCP 1991 Policy 13*	*			TC, PB, CC, Open Space Commission

Warren RCOS Plan – 1990, 1995	ASAP	5 Years	20 Years	Responsible Parties
Action 1 Publicize tax incentives for farmland/open space	*			CC, Tax Assessor
Action 2 Assist farm owners in applying for state purchase of development rights and incentive programs		*		CC, Tax Assessor
Goal IX: Preserve and rehabilitate historic, cultural and archaeological sites **see WCP 1991 Policy 3*		*		WVHDC, CC, TC
Action 1 Use zoning and subdivision regs to encourage preservation of sites	*			WVHDC, PB, TC
Action 2 Work with local and state groups to inventory all important sites		*		WVHDC, Harbor Commission, TC, CC
Action 3 Establish historic zone including the National Register District	**Complete**			TC
Goal X: Identify and protect wildlife habitat **see WCP 1991 Policy 15*		*		CC
Action 1 Collect wildlife habitation info		*		CC
Action 2 Research methods to protect wildlife and habitats at risk		*		CC
Goal XI: Provide active and passive recreational opportunities **see WCP 1991 Policies 3, 16*	*	*	*	TC, DPW, Open Space Commission
Action 1 Complete Asylum Road Park	**Complete**			DPW, TC
Action 2 Develop Community Center for Indoor Recreation		*		DPW, TC
Action 3 Acquire recreation/open space areas in Touisett			*	TC, CC, Open Space Commission
Action 4 Develop facility for band concerts	**Complete**			TC, DPW
Action 5 Improve public access to shore through parking and boat launch facility			*	TC, Town Planner, Harbor Master
Action 6 Improve/maintain railroad access (and bike path) for recreational uses such as fishing, biking, hiking, access to river			*	TC, RIDOT
Action 7 Use land acquired by the Town for recreational purposes		*		TC, DPW
Action 8 Expand Town Beach			*	TC, DPW
Action 9 Commission Town-wide Recreational Needs Assessment		*		TC
Goal XII: Create development tools for conservation of natural resources **see WCP 1991 Policies 3, 17*	*			PB, TC, CC
Action 1 Coordinate decision-making between town boards	*			Town Boards and Department Heads
Action 2 Coordinate review of development projects between town boards	*			PB, CC, DPW, Department Heads
Action 3 Establish board to assist in the updating of Comprehensive Plan		*		TC
Action 4 Commission Build-out Study to determine growth under current zoning		*		TC

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WARREN COMPREHENSIVE PLAN
CIRCULATION

June 2003

I. INTRODUCTION

The Circulation Element inventories the town's circulation systems and analyzes their effectiveness and impact on economic development, town character and other aspects of life in Warren. The Policies and Actions that follow provide a framework for improving townwide circulation to support the needs of Warren residents and businesses. This Element addresses vehicular and pedestrian transportation systems, the bike path, intermodal transportation, parking, planned transportation improvements and dangerous intersections.

The principal goals of the circulation element are:

Goal: **Improve and maintain circulation throughout Warren for all forms of transportation including automobile, pedestrian, and water taxi.**

Goal: **Ease congestion caused by regional traffic patterns.**

Goal: **Maintain and improve the quality of the circulation system, including public and private roads, sidewalks, the bike path, and related elements.**

Goal: **Provide ample parking while maintaining town character by avoiding the paving of large areas.**

Goal: **Develop an efficient intermodal circulation plan that incorporates a coherent parking scheme.**

Goal: **Promote economic development by providing easy access to and circulation through industrial and commercial sites and areas.**

II. INVENTORY

A. REGIONAL CIRCULATION

Figure 1, Intersections with Frequent Accidents, depicts Warren's major roadways. Primary through-roads are routes 114 and 136, which run north-south and Route 103 (Child Street), which runs east-west. Routes 114 and 136 are heavily traveled, carrying traffic bound for Bristol and points south. Traffic on Rt. 114 as it becomes Main Street in Warren is particularly congested. "Miller and Baker Streets serve as secondary intermediate cross streets and access points to the waterfront area. North Main Street (RT-114), at the American Tourister complex, acts as the town's northern gateway to both Downtown Warren and the Waterfront. Similarly, Campbell Street at RT-114 functions as the southern gateway to both areas, with the Campbell Street / Water Street intersection serving as a secondary gateway to the Waterfront."[1]
Problems contributing to that congestion include: entering local traffic; cars parked too close to

1 Urban Design Group, 2001. Bristol RI, 2001. Taken from Element E Circulation Parking and Zoning of the *Warren Waterfront Study*.

the intersection of side streets and Main Street; pedestrians; stop lights in the center of town; and the bicycle path intersection.

B. ACCIDENT DATA

Figure 1, Intersections with Frequent Accidents, depicts Warren's roads and accident data from 1994 through 1996(2) for the thirteen of Warren's intersections where accidents occur most frequently. Metacom Road has more accidents than any other Road in Warren. The highest rate of accidents occurred at the intersection of Metacom and Libby with an average of 9.7 accidents per year and Metacom and Child with an average of 9.3 per year. Metacom and Seymour averaged 7 per year and Main and Vernon 6.3.

Other accidents not referenced to an intersection also occurred principally along Main, Market and Metacom. During this same three-year period there were a total of 685 accidents or an average of 228.3 per year. Approximately 75 to 80 percent of these accidents occurred at referenced intersections. Parking lot accidents ranged from about 8 to 20 per year.

C. IN-TOWN CIRCULATION AND PARKING [2]

"The colonial development of the area has resulted in a pattern of narrow but quaint streets, which, combined with a proliferation of narrow building lots, limits off-street parking for many residents. This has led to a system of one-way streets to allow for on-street parking. Consequently, due to the narrow streets, the neighborhood's existing street pattern is not conducive to the orderly movement of traffic throughout the neighborhood.

This network of narrow streets, often one way and many with T or offset intersections, inhibits heavy traffic use. Fortunately, this tends to discourage and limit the size of trucks servicing some of the larger businesses in the area, a godsend for area residents. This, with a tendency to park too close to intersections, compounds traffic problems, due to restricted turning radii at many of these intersections. Similarly, parking and off-loading on Water Street often impedes the orderly flow of traffic because of the narrow width of the existing travel lanes.

Water Street is an unstripped two-way street with on-street parking permitted on its west side. It is classified as a minor arterial street between North Main Street and Bridge Street. Many of the side streets along Water Street are one way. Caution and directional signs are minimal throughout the area, while pedestrian crosswalks and handicapped ramps appear to be non-existent. Due to the ongoing traffic bottleneck on Main Street, Water Street is regularly used as a short cut, particularly at rush hour. Recent figures furnished by the police department indicate that speeding continues to be a major problem along Water Street.

Parking continues to be an issue in the area, particularly on neighborhood side streets. It is estimated that there are approximately 50 parking spaces along Water Street. Many of the businesses along Water Street do provide off-street parking for their employees and customers. Overspill parking, however, does occur, causing problems for both residents and area businesses.

2 Urban Design Group, 2001. Bristol RI, 2001. Taken from Element E Circulation Parking and Zoning of the *Warren Waterfront Study*.

Similarly, it is noted that additional public parking is required to meet demands not just in the Downtown area but also along Water Street. In addition to curbside parking and private lots in the Downtown, there are currently 3 public parking lots serving the Downtown area, namely:

The Municipal Lot behind Town Hall 75 spaces ±
The Municipal Lot at Railroad Avenue 60 spaces ±
The RIPTA Park & Ride Lot at Franklin Street 85 spaces ±

On the Waterfront, there are some 75 curbside parking spaces on Water Street, as well as private parking areas servicing businesses such as the Wharf Tavern, Tav-Vinos and other properties. At the southern end of the project area there is a parking lot to service Burr's Hill Park and the Town Beach, as well as some curbside parking. This parking area which has about 72 spaces is somewhat removed from the commercial activities along Water Street and therefore has little impact in reducing the parking demand further up the street.

One of the major constraints inhibiting the orderly revitalization of the waterfront is the current circulation pattern in the Downtown and waterfront areas. In order for this to be addressed, the issue of traffic congestion on RT-114 / Main Street, particularly at rush hours, has to be solved. However, circulation and parking will remain a problem for the neighborhood, due to its colonial street patterns and narrow streets. Some relief could be found for these issues, should the traffic bottleneck on Main Street be worked out and additional public parking found for the area."

The congestion along Main Street is exacerbated by the number of dead ends and one-way streets, and the absence of connector streets providing alternative routes. Initiated by the 1966 Comprehensive Plan, plans to lessen congestion by connecting dead-end streets in the center of town have not been implemented. Specific suggestions that if implemented would improve the overall appearance, circulation and safety of the downtown and waterfront areas are highlighted in Section III of this element.

Other congested areas include the busy strip commercial stretch of Metacom Avenue, the western portion of Child Street and the irregular traffic loop that marginally serves north and south traffic on Rt. 136 as it intersects with Child Street (Rt. 103). Improvements were recently made to Metacom Avenue south of Franklin Street. Planned improvements to School House Road were never made due to neighborhood concerns. If this project is resurrected in the future the upgrade should address protection of the Kickemuit watershed from potential runoff, the possibility of adding sidewalks to improve pedestrian safety and overall traffic speeds.

D. NEIGHBORHOOD CIRCULATION

Due in part to Warren's unique landform and settlement patterns, neighborhoods and sub-neighborhoods are formed mainly by localized road patterns, each with very limited connection to major roads or adjacent neighborhoods. The result of these patterns is an absence of secondary or tertiary routing options. This has even occurred in more recently developed sections, increasing the difficulty of finding alternative routes across the southern half of the town. Similar problems have negated the possibility of local alternative north-south roads. Added to these conditions are the physiographic bottleneck caused by the flanking rivers and the limited

crossings of the Kickemuit River. In general, these conditions severely limit circulation improvements short of drastic actions that would radically change Warren's character.

E. BICYCLE PATH

The East Bay Bicycle Path (Figure 2) is the first bicycle/pedestrian facility to be built under RIDOT's Bicycle Program. The 14- mile scenic path runs along the Providence River, Narragansett Bay and Bristol Harbor through East Providence, Barrington Warren and Bristol. The path is an undisputed success, used extensively for bicycling, walking, fishing and even commuting. The Waterfront Study recommends that spurs from the bike path be developed in order better to connect bike path traffic to the waterfront. Since its inception, the bike path's popularity has grown and a feasibility study of a bike path extension from Warren into Swansea along the old Fall River Railroad right-of-way was completed by RIDOT in 1999.

Despite its popularity, however, the bike path has raised concerns about public safety. On the path itself, conflicting uses by bicyclists (sometimes at high rates of speed) and pedestrians (some pushing strollers or walking with young children) poses a safety threat. In the interests of pedestrian safety, designers should evaluate the possibility of a narrower path parallel to the bike path that is exclusively for walkers. Where the path intersects streets, automobile traffic threatens crossing bicyclists and pedestrians. This conflict also slows automobile traffic through downtown. These critical crossing points are at Child Street and Main Street.

F. PEDESTRIAN MOVEMENT

Generally, Warren is an accessible town where it is convenient and natural to walk. This is especially true in the town center and along streets in the Historic District. In December of 2001, Warren was awarded a $1 million grant, which RIDOT will use to improve sidewalks in the downtown area. Sidewalks are not as prevalent in newer outlying tracts or suburban enclaves where walking is less clearly encouraged. The greatest pedestrian-vehicle conflict is experienced along Rt. 136 north of Child Street (Rt. 103) and along Rt. 103 east of the Town center. The bicycle path is very successful as a pedestrian walkway although, high-speed bicyclists sometimes pose a threat. Other pedestrian/ bicycle paths should be encouraged.

Recreation trails or greenways linking sectors of the Town are limited. Local roads serve this purpose in the less built-up sections. High local regard for conservation and recreation suggests that the Town might give more attention to a linkage system that could be combined with a greenway or buffer system. This would provide access to natural sites and recreational grounds while upgrading and protecting their edges.

An additional area of concern is the number, location and convenience of public access to the waterfront. Accessibility enhances local use of the rivers and Bay but is sometimes perceived as encouraging out-of-towners to use local streets, adding to congestion.

G.TRANSPORTATION IMPROVEMENT PLAN

The RI Department of Administrations current Transportation Improvement Plan lists three

Warren projects.[3] These include: The East Bay Bike Path extension to Swansea along the old Fall River Railroad, pavement management (crack sealing/microsurfacing) for Vernon Street from Route 114 to Route 136 and $370,000 in enhancement funds for preliminary work associated with the Downtown revitalization of Main Street /Rt. 114. The East Bay Bike Path extension is scheduled for final design and construction and has been allocated $ 2.25 million. The Town should continue to seek funding through RIDOT's enhancements program, their transportation and air quality and mitigation program and other funding categories for implementation of transportation–related improvements outlined in the Warren Waterfront Study and the Downtown Revitalization Plan.

H. RIPTA AND THE PARK AND RIDE

The RI Public Transportation Authority (RIPTA) buses currently provide a Warren to Providence Connection for commuters. The bus stops at Main and Joyce Street beginning at around 5 in the morning and continues every 20 to 30 minutes during rush hour. The drive to Kennedy Plaza in Providence takes approximately 25 minutes. The schedule is similar from Providence to Joyce Street during the afternoon. Frequent buses run all day long until about midnight. Weekend buses begin before 8:00 and run approximately every hour. Schedules can be obtained at www.ripta.com/schedules/. To facilitate rideshare and the use of public transportation, improvements should also be made to the park and ride at Franklin Street.

III. ANALYSIS

A. REGIONAL TRAFFIC CONDITIONS

Regional traffic patterns increase congestion on the roads entering and extending through Warren as well as on the secondary roads. Short of major new road construction, options are limited for improving traffic conditions. Small-scale improvements, however will help bring existing roads into compliance with DOT standards, alleviate traffic bottlenecks, dangerous conditions, and reduce travel time. A clear local review procedure should be developed to ensure that improvements meet both DOT standards and are consistent with the Town's priorities for neighborhood coherence and historic preservation. The Town should carefully review proposals for improvements to routes 114, 136 and 103 to ensure that proposed changes clearly improve local conditions and do not damage local settlement patterns or the town's scenic or historic character.

The following potential improvements and upgrades should be evaluated and considered:

- Couple portions of Child and Market to create a more efficient connector between Rt. 114 (Main Street) and Rt. 136.

- Reconfigure the existing merger of upper Metacom and Arlington on either side of Rt. 103 (Child Street) to reduce sharp curves.

3 RI Department of Administration, Division of Planning, October 2000. *State of RI Transportation Improvement Program, October 2000 through September 30, 2002; Moving RI into the New Millennium.* www.planning.state.ri.us

- Upgrade Rt. 136 from the Massachusetts line to Child Street widening some sections to four lanes. Alternately, evaluate a turning lane similar to that in Barrington and consider separating the commercial and industrial traffic with the potential use of the high tension right-of-way

- Make Child and Market Street one way from Main to Redmond. Provide improved connection between Child and Market.

- Maintain and enhance sidewalks and directional signage particularly in the downtown and waterfront area.

All of these potential improvements could result in substantial local impacts and require careful evaluation and local public review. A Water Street/Main Street one-way system is not desirable. One-way streets in this area would increase traffic speeds through a dense, predominantly residential neighborhood and would not benefit merchants on Main Street.

The Town should initiate and maintain input to DOT, through Statewide Planning and the TIP process, in order to influence current and future plans in the Town's best interest. Local concerns about regional traffic patterns can be addressed in part by simple actions such as posting signs along I-195 that mark Rt. 114 as a Scenic Route and Rt. 136 as the direct route to Warren and Bristol.

B. IN-TOWN TRAFFIC

Traffic congestion in Warren is the result of a high volume of regional traffic through town and a lack of alternate routes for in-town traffic. Local travelers are inconvenienced by dense through-traffic bound for Bristol and points south, as well as those travelling from Barrington and points north. Alternative local traffic routes would help make both local and regional travel easier by diverting through-traffic and lessening local volume.

As already stated, alternate secondary connectors from Main to Metacom and others running north-south were proposed as early as the 1966 Warren Comprehensive Plan. Although they can facilitate local traffic, some neighborhood residents perceive such connectors as unsafe and intrusive. Future consideration of secondary linkage should keep in mind the necessity to tie into area plans. An example of this is the potential for an office/service/industrial development in the area behind Main and Child streets, which in order to be successful would need clear feeder streets and reasonable parking. Potential manufacturing areas would need new and/or upgraded roads that would allow truck traffic without infringing upon residential areas.

Other steps that the Town could take to ease local congestion, include but are not limited to, additional painting to mark lanes with arrows, create dedicated turning lanes, and use traffic signals with arrows. These will ensure that traffic is not blocked by individual cars attempting to turn at busy intersections. Potential locations include Main/Water and Child/Metacom.

In the downtown and waterfront areas, the Town together with RIDOT should also investigate the feasibility and types of traffic calming devises suitable for Water Street. In addition they should work together to minimize the current traffic bottleneck on Main Street. Pedestrian crosswalks and handicapped ramps should be installed at key locations and a comprehensive directional signage system developed. To help ease congestion and neighborhood disturbance the Town together with affected businesses should work out specific times for truck traffic to service businesses along Water Street.

C. PARKING

A coordinated parking system must be developed that takes advantage of the existing but underused parking resources of the Town and local businesses. This entails improving signage for public parking; making parking for individual businesses available to patrons of other establishments (shared parking); improving lighting for all parking areas; landscape improvements. In addition parking could be improved by changing parking habits so that storeowners and employees do not monopolize prime parking spots and patrons recognize available parking that may not be right on Main Street. This entails the development of a coordinated parking program between the Town, commercial operators and property owners that could include:

- Public and private employees parking at the municipal lots on Sanders Street and Railroad Street and Franklin Street
- Public funding for enhancement to privately –owned lots
- Landscape improvements to Town Hall and Railroad Street Parking areas.
- Residential permit parking
- Stricter enforcement of no parking areas
- Better address off-street parking needs of new commercial and residential establishments
- Shared parking
- Investigate the need for resident sticker parking in the historic area
- Target potential properties in the area that might be appropriate for eventual development as off-street parking areas

D. VIEWS AND SCENIC ROADS

Warren's main roads do not offer consistent views of the surrounding water. The general impression is that the town is less coastal than it actually is. Every opportunity should be taken to open up views to the water, to acquire the development rights to key parcels where buildings will further block sightlines to the water, and to even consider realignments that will position main roads to capture views of the water and other scenic attractions.

E. PEDESTRIANS, BIKEPATHS, AND GREENWAYS

The small town character of Warren suggests that sidewalks should be required in the built-up sections of town and that greenways or recreational trails are appropriate for linking. Spurs that link the bike path to the waterfront should be evaluated and designed. If a ferry terminal is constructed in the future this should also be linked to the East Bay Bike Path. Figure 3 depicts

the planned East Bay Bicycle Path extension along with adjacent schools, recreation sites, employment centers, etc. Links to these facilities should be incorporated into the construction and design of the extension. The Warren extension will run along the old Fall River rail and will connect the existing segment of the bike path to the town of Swansea, Massachusetts. At a regional level, the Warren extension will be connected to the East Coast Greenway, an evolving multi-use trail that may one day connect major cities from Maine to Florida.

Riverwalk: The concept of a riverwalk running the length of the harbor from the Narragansett Electric property to the Town Beach has been discussed by Town officials. The riverwalk would be a recreational trail that would span all the properties along the waterfront. The walkway could also serve as sculpture walk and form a spine for a revolving display of public art, similar in concept to Providence's Convergence Festival. Easement acquisition could be a complicated and lengthy process. Elements of the walkway, however, are already in place and could initially form a series looped spurs off Water Street. The phasing of its overall implementation should be a long-term goal of the Town.

F. STREETSCAPE AND DESIGN STANDARDS

Streetscapes design initiatives would accomplish the following:

1. Open up and reinforce linkages to the water through the development of more defined pedestrian connections from Downtown to Water Street.
2. Introduce a series of secondary spur trails from the East Bay Bike Path, connecting to both Main Street and the Waterfront area. Bicyclists cause neither traffic, parking or pollution problems and are a relatively untapped source of potential revenue to area businesses.
3. Explore with RIPTA the introduction of amenities, including public rest rooms and a bike lock ups, to the Park and Ride facility at Franklin Street,
4. Initiate streetscape improvements along the proposed pedestrian and bike path corridors that incorporate landscaping, street furniture and a well-designed system of directional and interpretive signage.

The town would also benefit from more street furniture along key streets, especially Main, Water, and Child.

Street trees reinforce a sense of place and add value and status. Street tree planting should become an integral part of street improvement and maintenance. The Town might even initiate its own nursery and planting program that encompasses both downtown commercial streets and entire residential neighborhoods. The Downtown Revitalization Plan highlights several efforts by the Town's Department of Public Works and the Warren Preservation Society over the past few years.

G. OTHER FACTORS

Gateways: A town's circulation systems can have a great deal to do with the image of a town, affecting the quality of life, outsiders' perceptions, and economic development prospects. Besides the limitations posed by congestion on the major roads and limited direct access to

industrial sites, Warren's image is hurt by ambiguous "gateways" or entry points signifying that one has entered the Town. The Narragansett Electric site, with its high visibility and direct access off RT-114, would make an ideal location for a "gateway center" to Warren. It could house a visitor center, satellite parking and perhaps other municipal functions such as a town community center along with supporting rental space. The site would, however, require remediation due to contamination of its soil, a lengthy and costly procedure.[4]

Billboards: Currently, many billboards throughout Town obscure scenic views, including those to the water. The character of development on either side of Rt. 136 as one travels south into Warren severely detracts from the outsider's impression of the Town. A plan for improving the appearance of this northern gateway, through landscape screening, street trees and other measures should be developed.

Tourism: Tourism an element important in Warren's economic development of Warren is either positively or negatively affected by the Town's transportation system. The Warren Waterfront Study recommends that the feasibility of a ferry terminal in Warren be investigated as part of the Narragansett Bay Ferry System. Coupled with the bike path, RIPTA routes, existing roads and sidewalks and the proposed riverwalk, this terminal could provide another valuable link in an intermodal transportation system.

A well-designed coordinated system of wayfinding within the community that included general signage and other streetscape amenities such as interpretive displays and historic plaques are other transportation–related items that would improve tourism.

Main and Metacom: Main Street and Metacom Avenue are poorly defined, in disrepair in places, and lack continuity. General "Main Street" improvement is needed to recapture the potential of downtown. These strategies should include greater attention to parking, sign placement, size and character and general restoration of the fine historic structures in the downtown area. Specific improvements are discussed in more detail in the Warren Downtown Revitalization Plan and the Warren Waterfront Study. Improvement of the image of Metacom Avenue will be more difficult, requiring incremental reinvestment and rebuilding as stores expand, become obsolete or need construction improvements.

IV. POLICIES AND ACTIONS

Policy 1: Plan all circulation improvements in the best interests of pedestrian, bicycle and automobile safety.

> Action 1.1 Periodically review highway circulation, congestion and impact of roads on adjacent land uses so as to have a Town-based position to compare with DOT plans. This action includes review and updating of street design and construction standards within the subdivision regulations. [Planning Board, Town Council]

Action 1.2 Examine the potential use of turning lights and arrows at major intersections. [Town Council, Warren Police Department, Warren Department of Public Works (WDPW), Warren Police Department (WPD),RIDOT]

Action 1.3 Improve bicycle path safety, particularly at street crossings, through use of better signage and other measures. [Town Council, DPW, WPD,RIDOT]

Action 1.4 Investigate potential of a turning lane on portions of Metacom, similar to that on County Road in Barrington [RIDOT, Town Council]

Policy 2: Maintain Market Street/Metacom Avenue (Rt. 136) and Main Street (Rt. 114) as the primary north-south arteries.

Action 2.1 Prepare master plans for the improvement of Market Street/Metacom Avenue (Rt. 136) and Main Street (Rt. 114) which cover possible improvements to the roads, curb cuts, road edge planting and improvements, sign control, and land use impacts. [Planning Board, Warren DPW/Highway Department, Town Council, RIDOT]

Action 2.2 Coordinate plans for Main Street, Metacom Avenue and Market Street with neighboring towns. [Town Council]

Policy 3: Provide alternate routes to Market Street/Metacom Avenue and Main Street for local and/or truck traffic.

Action 3.1 Study connection of dead-end streets in the center of town; connect where appropriate. [Planning Board, Warren DPW/Highway Dept., Town Council, RI DOT]

Policy 4: Provide and maintain sufficient, well-designed, well-marked and well-lit parking areas to meet residential, commercial and industrial needs.

Action 4.1 Initiate a coordinated public/private parking system to rationalize parking facilities in the Main Street area. [Chamber of Commerce, Planning Board, Town Council]

Action 4.2 Enhance parking lots in other areas of town with landscape and other improvements to improve overall design and aesthetics. [PB, TC Chamber]

Policy 5: Provide substantial pedestrian greenways that link neighborhoods to schools and to recreation and conservation sites.

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Action 5.1 Develop the East Bay Bike Path Warren Extension so that it connects to schools and major recreation and conservation sites. Conduct an inventory and study of available and/or appropriate land for such a pedestrian system This could potentially include spurs off of the East Warren connector. [Planning Board, Recreation Board, Warren Land Conservation Trust]

Action 5.2 Investigate the development of spurs off of the East Bay bike path that would connect to the Waterfront.

Action 5.3 Encourage bicycle path use for local trips, emphasizing its proximity to Town services and businesses.

Action 5.4 Conduct feasibility study for the Riverwalk [PB, Conservation Commission, Town Council, RIDOT].

Policy 6: Encourage the coordinated development of intermodal transportation in Warren

Action 6.1 Conduct a feasibility study for the proposed ferry terminal; connect any terminal to bikepath. [RIDOT, TC]

Action 6.2 Improve Franklin Street Park and Ride. [RIDOT, RIPTA, Town Council]

Action 6.3 Implement associated parking improvements needed to support an intermodal transportation network. [Town Council, RIDOT]

Policy 7: Ensure convenient vehicular access to industrial and commercial zones in order to retain and attract business.

Action 7.1 Investigate the potential for secondary feeder roads to parallel both north-south and east-west highways; consider integration of special developments in conjunction with such linking roads. [Planning Board, Town Council, Warren DPW/Highway Dept., RI DOT]

Action 7.2 Evaluate upgrade options listed in Section III, Analysis, of this element. [Planning Board, Town Council, Warren DPW/Highway Dept., RI DOT]

Policy 8: Initiate and maintain input to DOT regarding all current and future plans effecting Warren.

Action 8.1 Establish a formal local procedure for review and input on RIDOT upgrade plans and other TIP items. [Planning Board, Town Council]

Action 8.2 Ensure pedestrian safety, low traffic speeds and protection of the watershed in any upgrade of School House Road. [Planning Board, Conservation Commission, Town Council]

Policy 9: Develop an efficient and coherent parking and intermodal circulation plan.[PB,TC] (See pages 11 and 12 of the Downtown Warren Revitalization Study.)

Policy 10: Provide for coordinated gateways into the downtown area.

Action 10.1 Further investigate the potential use of the Narragansett Electric site as a potential gateway into Warren. [Town Manager, Town Council]

Action 10.2 Through streetscape improvements, signage and buffering try and improve the appearance of Market Street as a Gateway into Warren from Swansea. [PB, Warren Public Works, area businesses]

Policy 11: Implement transportation-related improvements.

Action 11.1 Investigate and develop street calming measures on Water Street. [Town Council, RIDOT]

Action 11.2 Implement improved parking measures. [Planning Board, Town Council, RIDOT, Warren Public Works)

Action 11.3 Implement streetscape related improvements [Planning Board, Town Council, Warren Public Works]

V. IMPLEMENTATION

The Federal Highway Administration / RI Department of Transportation provides transportation improvement grants administered through the RIDOT. For example, the Transportation Improvement Program for street and intersection upgrading etc. is updated and prioritized annually. In addition TEA-21 grants for intermodal transportation projects such as such as bike trails, commuter parking and ferry systems etc are eligible under this program. For example, the proposed improvements to the RIPTA Park & Ride Lot on Franklin street, the suggested spur trails from the East Bay Bike Path to Water Street and the Downtown, the proposed Ferry Terminal, along with the Riverwalk are all eligible items under this program.

IMPLEMENTATION TABLE

	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 1: Improvements in best interest of pedestrian, bicycle and vehicular safety.	*	*		TC, WLCT, CC
Action 1.1 Periodically review highway conditions and landuse impact *including street design and construction standards.*	*	*	*	PB, TC
Action 1.2 Evaluate signaling and signage at intersections.	*			TC, WPD, WPWD, RIDOT
Action 1.3 Improve bicycle safety	*			TC, WDPW, WPD RIDOT
Action 1.4 Turning lane Metacom	*			RIDOT, TC
Policy 2: Maintain Market/Metacom and Main as the primary north-south arteries.	*	*	*	TC, RIDOT
Action 2.1 Prepare master plans for these roads		*		TC, RIDOT
Action 2.2 Coordinate with adjacent towns.	*	*		TC
Policy 3: Alternate routes for Market, Metacom and Main	*	*		PB, WDPW,TC,RIDOT
*Action 3.1 Ex*plore thru-street connections		*		PB, WDPW,TC,RIDOT
Policy 4: Sufficient and well-designed parking	*			PB, TC, Chamber
Action 4.1 Coordinated public private parking	*			PB, TC, Chamber
Policy 5: Pedestrian greenways linking neighborhoods, schools, parks, etc	*	*		PB, WLCT TC Rec Board, RIDOT
Action 5.1 Warren bike path extension; connect to other sites	*	*		PB, WLCT, RIDOT
Action 5.2 Spurs from bike path to waterfront	*	*		PB, RIDOT, TC
Action 5.3 Encourage bike path for local trips				Chamber, RIDOT
Action 5.4 Feasibility study for Riverwalk	*			TC, RIDOT, chamber
Policy 6: Coordinate development of intermodal transportation	*	*	*	RIDOT,TC,PB
Action 6.1 Ferry terminal feasibility study	*			TC,RIDOT
*Action 6.*2 Improve Franklin St Park and Ride	*			RIPTA,RIDOT, TC
Action 6.3 Associated parking improvements		*		TC, RIDOT
Policy 7: Convenient vehicular access to commercial and industrial areas	*	*	*	TC, PB,WDPW, RIDOT
Action 7.1 Secondary feeder roads		*		TC, PB,WDPW, RIDOT
Action 7.2 Evaluate upgrade options		*		TC, PB,WDPW, RIDOT
Policy 8: Input to RIDOT	*	*	*	TC, PB, CC
Action 8.1 Establish formal procedure	*			TC
Action 8.2 Ensure water quality, pedestrian safety low traffic speed in any upgrade of School House road		*	*	TC
Policy 9: Develop an efficient and coherent downtown parking and intermodal circulation plan.	*	*	*	TC
Policy 10: Coordinated Gateways		*		TC,PB,RIDOT, Chamber

continued	**ASAP**	**5 yrs**	**20 yrs**	**Responsible Parties**
Action 10.1 Investigate potential use of Narragansett Electric site as gateway		*		TC, TM
Action 10.2 Streetscape improvements Market St	*	*		TC,PB, area businesses
Policy 11: Transportation related improvements	*	*	*	PB,TC,RIDOT,TM, area businesses
Action 11.1 Street calming measures	*			TC, RIDOT
Action 11.2 Parking measures		*		PB,TC,WDPW,RIDOT
Action 11.3 Streetscape improvements		*		PB,TC,WDPW,RIDOT

Services and Facilities Element: Table of Contents

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WARREN COMPREHENSIVE PLAN
SERVICES AND FACILITIES ELEMENT

July 2003

I. INTRODUCTION

The Services and Facilities Element includes an inventory and discussion of the services and facilities provided by Warren and other community groups that help to ensure the public's health safety and welfare (Figure 1). The adequacy of the facilities and programs are discussed, as are plans for needed improvements. The overall goals of the element are listed below. More detailed policies and actions and a timetable for implementation are included at the end of this chapter.

A. OVERALL GOALS

- To provide residents with sufficient and high quality potable water.
- To provide state-of-the-art educational services and facilities.
- To ensure a high level of wastewater treatment through maintenance of facilities and careful management of growth.
- To ensure adequate electrical power needed to sustain current and future land use.
- To maintain a high level of public safety, including police, rescue and fire protection.
- To provide high quality services to senior citizens and special needs residents. Special needs residents include all physically and mentally disabled residents of Warren.
- To maintain high quality library service for all Warren residents.
- To provide efficient and accessible local administration and government.

II. INVENTORY AND DISCUSSION

A. PUBLIC WORKS

This subsection includes services provided by the Warren Department of Public Works such as solid waste handling and the maintenance of town roads and other town infrastructure. In addition it addresses Warren's public sewage and water systems.

Department of Public Works/Highway Department (DPW)

The Warren DPW, employs 18 people and is responsible for maintenance of Town roads, vehicles (with the exception of the fire fleet), drains, buildings, parks, and cemeteries. DPW also monitors solid waste pickup and deposit at the Town transfer station and litter control including weekly bulky waste pickup. State-mandated recycling and pavement management programs (with URI) have recently been undertaken.

Approximately 6,000 tons of are processed through the transfer station each year. This puts considerable wear and tear on the compactor. The State-sponsored recycling program accounts for approximately 15% of disposable trash. In addition, a compost heap has been established at the Town yard and an associated public education program encourages citizens to compost

leaves, grass clippings and other biodegradable substances. Besides reducing the amount of raw trash, recycling eases the burden on the compactor. Waste disposal will continue to be a serious issue throughout the State and region. To ease the burden on the local DPW and the transfer station as well as the Central Landfill in Johnston, Warren residents should try to reduce the amount of waste they produce and increase recycling. The transfer station is accessible from Birch Swamp Road and is also used by the Town of Barrington on a limited basis for a fee. There is some interest in providing new access directly from Market Street.

Toxic waste disposal is primarily handled at special statewide collection sites established by the Rhode Island Department of Environmental Management (DEM). Collection of waste oil is handled through the "igloo system" at the transfer station on Birch Swamp Road. DEM retains a contractor to empty the "igloo" (approx. 200 gallons) at no cost to the Town. Industry-generated toxic waste is disposed of outside of Warren and regulated by State and federal authorities.

DPW storage facilities located at the Town Yard on Birch Swamp Road have been expanded in the last ten years, but are still insufficient. The 5-year capital improvement plan for public facilities provides more specific details regarding future needs and expansion plans. The former site of the DPW on School Street (where Wujcick's Barn was) has been suggested as good location for a nature center. (See Recreation , Conservation and Open Space Element.)

Sewage Treatment

The Warren Wastewater Treatment Facility, located on Water Street, is a modern treatment facility, built in 1949 and upgraded and expanded in 1982. It serves an estimated 8,000 businesses and residents and provides secondary treatment of wastewater that is discharged into the Warren River. Under normal conditions, the treatment processes are expected to remove in excess of 90% of the incoming loads of suspended solids and 5-day BOD that deprives the water of oxygen, harming aquatic life. Warren's RIPDES permit allows for a maximum average monthly flow of 2.01mgd. This is often exceeded due to infiltration and inflow from an antiquated collection system. Correcting the inflow and infiltration (I&I) problems will free up needed capacity and improve plant operations.

Plant operations are managed by Woodward and Curran under contract to the Town. The basic flow diagram consists of an aerated grit chamber followed by six primary clarifiers, two aeration basins (mechanical aerators), two secondary clarifiers and two final contact chambers. Disinfection was recently converted from chlorine gas to liquid chlorine. Sodium bisulfate, a dechlor agent is also added at the outfall.

Despite the fact that infiltration often causes the treatment plant to exceed its 2.01 million gallons per day limit, the plant has consistently received excellent ratings from Save the Bay's periodic report on the performance of the State's sewage treatment plants[1]. This rating is based on two or fewer months of non-compliance with BOD (biochemical oxygen demand) and TSS (total suspended solids) permits. Despite the excellent performance of the plant the collection system needs to be upgraded. The higher than normal flows have not yet impacted the plant's pollutant removal capacity, but treating infiltrated water is an inefficient use of tax dollars and

[1] Save the Bay, 1998. The Good, The Bad and The Ugly. Providence, RI

community resources. The oldest sewer lines date from the 1860s. The collection system for the sewered areas includes 45 miles of gravity sewers and force mains, six pump stations and two ejector stations.

The Warren Wastewater Treatment Facility has operated very efficiently over the last several years and many improvements have been made to insure high-level treatment. A sewer system evaluation survey was recently completed, together with recommendations of I/I removal and associated costs.[2] The I&I reduction program is expected to last three to five years and the costs will exceeed $2 million. A plan has also been submitted to upgrade the plant's instruments and controls. However, under State regulations, municipal waste treatment facilities now require pretreatment

The plant is also capable of treating septage from septic systems. The plant can accept up to 20,000 gallons per day. Septage haulers are contracted by the town and unsewered properties are entitled to two septic system pump-outs per year at no cost to them. Existing facilities are capable of removing, treating and disposing of settleable and floating solids and of reducing suspended solids and dissolved organic material. Primary and waste-activated sludges are stabilized in the lime stabilization process, conditioned with chemicals, dewatered on vacuum filters, and hauled by truck to approved disposal sites. Currently, sludge is shipped in a liquid form (approximately 6% solids) to a privately-operated incinerator in Woonsocket. Warren also has a marine pump-out facility

Sewer Facility Boundaries and Extension Limits

Sewer extensions are expensive to the Town and all development is a burden on the wastewater treatment facility. In addition sewer extensions into more rural areas tend to suburbanize the countryside and facilitate increased density and associated environmental problems such as contaminated runoff. The treatment facility has a limited capacity. Along with the costs of schools, water and other services, the cost of sewer improvements must be a major factor in future development decisions.

In keeping with the Land Use, Natural Resource and Economic Development Elements, a core area for the extension of sewers and water has been established in order to insure that the rural character of eastern Warren (Touisset) is not jeopardized. Sewer extensions into the Touisset area, and all other areas zoned R-40, will not be permitted through the enactment of a Watershed Protection Overlay District Zone. By limiting future sewer improvements and new hook-ups/extensions to the areas of town that are more developed both commercially and residentially, the Town's rural areas will be protected from urban sprawl.

Touisset (Touisset Neck south of Child Street area developments)

This is the largest and least densely developed area. It is mainly composed of farms and nurseries with scattered, recently built, individual "suburban" houses and two enclaves of former summer houses, most of which are now used year-round. Touisset is the largest unsewered part of town and has the greatest natural constraints to development. The central issue here is the balance between the rural and agricultural landscape and development pressure. There is strong

[2] Kemiega, David Plant Manager Woodward and Curran. Personal communication 2001.

interest in preserving active agriculture. Because of the Town's desire to protect the rural and agricultural nature of this area, land planning techniques such as a watershed protection overlay district need to be established to ensure that residential development does not establish a new suburban pattern.

Septic Systems

Most of the town is sewered, the notable exceptions being Touisset and northern Warren east of Market Street. As part of the Town's goals to preserve rural character individual sewage disposal systems (ISDS) will continue to be the principal means of wastewater treatment in these areas. A septic system inspection and maintenance program should be considered for unsewered portions of the Town. When properly designed, installed and maintained, septic systems can provide a cost-effective and viable alternative to sewers. Tourism dollars in the community, the viability of certain businesses, the value of homes and the less tangible, though no less real, high quality of life enjoyed by residents, are integrally connected to the preservation of the Town's water resources. An investment in septic system and land use management, and the use of advanced on-site wastewater treatment systems in critical resource areas, can help the Town preserve it priceless water resources and rural agrarian heritage.

Water Supply

The Bristol County Water Authority (BCWA) was organized in 1984 to acquire the Bristol County Water Company and address persistent problems associated with insufficient water pressure, unpleasant taste and water supply shortages during periods of dry weather. Formation of the BCWA followed several studies that examined the system's problems and offered possible solutions. Board members of the BCWA are appointed by the Bristol, Warren and Barrington town councils.

The Cross Bay pipeline completed in 1998 transports water from the Scituate Reservoir and provides BCWA customers with about one third of their water consumption. The remaining two thirds comes from four surface reservoirs and two wells. The Kickemuit Reservoir in Warren is the terminal reservoir into which the others flow and is the only one in the system located in Rhode Island. The Swansea, Anawan and Shad Factory reservoirs are located to the north in Swansea and Rehoboth. Together the reservoirs have a usable storage capacity of 356 million gallons and a safe yield of 3.3 million gallons per day. The wells are located off Nayatt Road in Barrington. Per capita water consumption rose is about 55gallons per person per day.

BCWA has an ongoing program to replace transmission lines and to date has replaced about 70 miles. In addition a study has just been completed by the Maguire Group on how best to upgrade the Shad pipeline and the water treatment plant. Implementation of this program should begin within the next year.

Water conservation in Bristol County is the best in the State. Residential water consumption is about half the state average. Water saving toilets, faucets and shower heads are all employed in the conservation effort and the BCWA maintains an ongoing public education/conservation program which townspeople should take advantage of in continuing and furthering this effort. Warren residents have typically consumed far less water per capita than most cities and towns in

Rhode Island. This practice should continue and measures should be undertaken such as further use of water-conserving toilets, shower heads and faucets. The Town should take advantage of BCWA water conservation education materials.

Many of the issues that were initial stumbling blocks to the pipeline, such as the potential loss of local control over the county's water supply and continued maintenance of local infrastructure, in particular the shad pipeline and the antiquated treatment plant, have either been resolved or are in the process of being resolved.

In order to protect the local system as the primary water source, protection efforts for wellhead, reservoir and watershed management should continue. In the case of the Kickemuit Reservoir, this represents the preservation of an important scenic and natural resource for Warren as well.. (See also Land Use and Natural & Cultural Resources Elements.)

B. PUBLIC SAFETY

Police

The Warren Police Department has a full-time staff of 21 officers, including the Chief. Additional civilian staff consists of five communications dispatchers and an animal control officer. Five marked cars, three unmarked cars and a four-wheel drive vehicle make up the motorized patrol fleet. Generally, the Department is known for quick emergency response rates.

The headquarters in the East Bay Government Center (the refurbished Joyce Street School) are a vast improvement over the former Town Hall quarters, increasing the occupancy area by approximately 20,000 square feet. Included in these facilities are holding cells for adult and juvenile offenders. The communications console is over ten years old, however, and needs to be upgraded. These improvements, coupled with the department's previously existing good reputation for its response rate, indicate that the Warren Police Department will serve the town well for years to come.

Fire and Rescue

The volunteer Warren Fire Department consists of six stations. Participation is high, with some 250 members, and the Department is able to count on about 125 members in an emergency. Each Fire and Rescue Company has its own charter and operates under the jurisdiction of the Warren Fire Chief. The rescue company has some 30 members, about 80% of whom are certified Emergency Medical and Cardiac Technicians. Costly equipment must be regularly maintained and replaced.

The total of six pumpers can deliver 6000 gallons per minute (gpm) in fire fighting strength. Together with one aerial truck, three rescue vehicles and a special hazard unit, they make up the entire fleet. Following nationally recognized planning standards, Warren has adequate fire protection flow for a community of up to 40,000 people, well in excess of the population area served of approximately 11,385.

The combined force averages about 1600 rescue calls and 350 fire calls received per year (just over 5 calls a day). As evidenced over the past ten years, the frequency of calls increases as the population increases. In 1991 The Town has a mutual aid cooperation agreement with the neighboring towns of Barrington, Bristol and Swansea to provide support if needed.

While most of the town is easily accessible, fire service to Touisset becomes increasingly difficult as the population in that area grows, due to constraints posed by limited roads and water lines. Otherwise, the department provides a high level of service and should be able to do so for years to come. Adding to its cohesiveness and importance, the volunteer Fire Department serves a key social role in town.

Emergency Management

The Town's part-time Emergency Management Director coordinates large-scale emergency efforts with the Rhode Island Emergency Management Agency. The Town maintains an Emergency Operations Plan (1991), which is available through the Town Clerk's office. This plan includes reference to hazardous materials; cleanup is administered locally by the Fire Chief. The center for emergency operations where local officials would convene, is at the Police Station. Kickemuit Middle School (formerly Warren High School) is the Town's primary emergency shelter.

Harbor Management

Harbor management in Warren has been comprehensively addressed in the (1990) *Harbor Management Plan for the Town of Warren* (HMP**).** The HMP 1) identifies the issues associated with the harbor area and waterways; 2) suggests goals, objectives and policies for guiding public and private use of land and water in the defined harbor area; 3) provides an accurate inventory of both coastal and water resources of the Town; and 4) sets forth an implementation program which specifies the strategies for achieving the desired patterns of use on and adjacent to the harbor. Within a harbor management plan, all major issues pertaining to land-side and waterside use, and the relationship among them, are addressed. Relevant technical information pertaining to water quality, navigational hazards, mooring inventory, Rhode Island Coastal Resources Management Program (CRMP) water use designations, current use inventory and natural resource areas is collected and analyzed in developing goal and policy objectives. Public safety is a key area of the plan and the harbor master has a twenty -foot boat (with trailer) used to patrol the Palmer, Warren and Kickemuit rivers from May through September.

The Warren Harbor Management Planning Committee should be encouraged to remain active in monitoring harbor conditions and use and keeping the plan up to date.

C. *PUBLIC SCHOOLS*

Warren and Bristol share a fully regional school district. In the 2000-01 school year 61.8 % of the students attending district schools were from Bristol and 38.2% were from Warren. Regionalization has brought many improvements to Warren's aging school system of the 1990's. The Warren/Bristol public school system currently consists of the following nine schools housing the grades listed:

School	Grade	# Students	
Mt. Hope High School	9-12	1,148	
Kickemuit Middle School	6-8	904	
Colt Andrews	4-5	238	
Mary V. Quirk	4-5	216	
Guiteras School	K-5	307	
Hugh Cole	K-3	353	
Reynolds School	K-5	255	(arts magnet school)
Byfield School	K-3	168	
Rockwell School	K-3	199	

In addition to these schools the district also has the Adult Learning center whose offices are located at 689 Main Street in Warren. The adult education program provides GED training, classses for developmentally delayed adults, English as a second language and continuing education classes such as cooking, yoga, dance, etc.

The district recently completed a strategic plan. [3] Goal 5 of the plan addresses improvements to school facilities." We will ensure that our facilities meet the needs of the 21st century curriculum and practices. The objectives relating to this goal are:

- Fund, support, extend the districts asset protection plan
- Establish a taskforce to create and implement a district facility plan
- Fund, support and extend the technical plan for the district.

Facilities are currently nearing capacity and a variety of alternatives are being discussed. Among the options is an addition to the Hugh Cole School in Warren or a potential new school in Bristol. Establishment of a district facility plan would help to plan for improvements and expansions in the coming years. The District's Asset Protection Plan outlines maintenance needs for all of its buildings for a five-year period.

Education must be a priority if Warren is to keep pace with a changing world. The current per pupil annual cost to educate a student in the Bristol Warren School District (including state aid) is $9,975. While the burden of schools on the taxpayer is considerable, it is not an excessive percentage of local taxes in comparison with other municipalities in the state. Nevertheless, residential development must be monitored to control the additional cost of new families with schoolchildren.

D. *GOVERNMENT AND ADMINISTRATION*

Local Government

Warren is governed by an elected, unpaid, five-member Town Council headed by a Council President. The Council appoints several boards and commissions including the Planning Board, Zoning Board and Conservation Commission.

[3] The Bristol Warren School District's website has information on the strategic plan as well as each of the school facilities. In addition information is also available on administration, the school committee, adult education, etc. www.bw.k12.ri.us/

The 1991 Comprehensive Plan recommended that a Town Manager be hired to oversee the day-to–day administration of the Town. A Town Manager was hired in the mid-nineties, but the Town has had difficulty in maintaining a suitable person in the position. A Town Manager, Town Clerk, a Town Treasurer and other support staff provide daily administration. Other employees include the Building Inspector, Tax Assessor, Town Solicitor, Housing Director, and part-time Welfare Director.

In addition to acting on the restructuring recommendations listed above, the Town should establish centralized locations for filing and storing important materials and holding Planning Board, Town Council and other board meetings. Town zoning and land use maps and documents should be secure and readily accessible to and viewable by the public.

The planning and Zoning Board and the Conservation Commission monitor development in accordance with their mandates. In addition these groups may from time to time undertake specific studies or projects. The Town has neither planning staff nor ongoing use of consultant advisors. Three appointed boards carry out their functions as follows:

The Planning Board consists of nine appointed members and is responsible for recommending overall planning approaches to the Town Council and reviewing individual development proposals as they are brought before the board for subdivision and other mandated reviews. Most Planning Board activity involves subdivision application review but the board also periodically initiates broader-based planning efforts by directing studies, assembling task forces and hiring consultants. Planning staff is needed to assist the Planning Board with its Comprehensive Planning efforts and review of development projects. This is particularly true in light of the requirements for Comprehensive Plan updates and the administrative requirements of the Subdivision enabling act.

The Council-appointed Zoning Board, which also functions as the Platting Board of Review, hears appeals from persons or corporations seeking relief from decisions made relative to the land use ordinances of the Town. This is done through quasi-judicial hearings and decisions reached by the board.

The Conservation Commission is also appointed and is charged with identifying and monitoring those areas considered ecologically sensitive to development. As such, the commission serves an advisory role to the Town Council and Planning Board. The 1990 *Recreation, Conservation and Open Space Plan* was prepared by the Conservation Commission. It provides an inventory of recreation facilities, conservation lands, culturally significant properties, and environmentally critical areas, outlining goals and recommendations for each.

A common area of concern to the Planning Board and other Town boards is the lack of staff and adequate and consistent facilities for filing, displaying materials and conducting meetings.

Library

The George Hail Library is one of Warren's most significant cultural/educational assets. The Town should ensure the library's continued fiscal stability so that it can continue to develop

resources. Space limitations necessitate an additional facility in the long run. The George Hail Library is not a Town department but does rely on the Town for financial support. Other funding is provided by a grant-in-aid from the State of Rhode Island, administered through participation in the Rhode Island Interrelated Library Network. It is governed by a seven member Board of Trustees and an association of 35 members.

The Library was built in 1888. Centrally located on Main Street, it is one of Warren's most significant civic/institutional buildings. The expanding collection of books now exceeds 20,000 in number and services and programs are available for children and the visually impaired. Recently, services have expanded to include the lending of records, cameras, tapes, film, video cassettes, games, and puzzles. The library subscribes to over 70 periodicals as well as Providence, New York and Boston daily papers, the Wall Street Journal, and the Warren Times.

A renovation and restoration project was completed in 1980. This included installation of a new heating/air conditioning system and restoration of the first and second floors to the original Victorian design. Because of the growing resources future expansion of the facility will be required. Although future expansion plans are preliminary, fiscal attention should be paid to this future need. The library is a member of the Cooperating Libraries Automated Network (CLAN), the statewide library database. The staff of the George Hail Library consists of three full-time and three part-time members.

Recreation

Warren's Recreation Board, in cooperation with the School Department and private sponsors, offers a variety of recreational programs to residents of all ages. The board regularly evaluates existing recreational facilities and develops plans for future recreational development.

The summer playground program is the cornerstone of children's recreation. Supervised activities throughout town include arts and crafts, swimming, gymnastics, bicycle safety, and various games. Additional offerings include a lunch program, bowling, field trips, and special activities such as Beach Day and Warren-Bristol Field Day. Seasonal activities include soccer and basketball clinics for children 12 to 18 years old.

The Recreation Board's adult programs include men and women's softball leagues, line dancing, aerobics, and men's indoor and outdoor basketball leagues. The board also sponsors a softball tournament at the annual Quahog Festival and outdoor concerts at Burr's Hill Park.

Recreation Board programs are supported through fees and by Warren's Annual Budget. The budget covers expenditures for the Summer Recreation Director, Board Secretary, seventeen playground supervisors, umpires, equipment, transportation, and miscellaneous other costs. For a complete inventory of recreation facilities refer to the *Recreation, Conservation and Open Space Plan.*

E. SOCIAL SERVICES

Senior Services

According to the 1990 census, Warren's over 65 population makes up 17.6% of the population, compared with a countywide percentage of 15.8. In addition to senior housing provided by the Warren Housing Authority at Kickemuit Village (see Housing Element), services provided to senior residents include bus service and federally-funded free meals at Kickemuit Village. The Warren Senior Center also provides a myriad of activities and services. Warren's substantial and growing senior population indicates the need for more comprehensive and accessible senior services. As the senior population rises, existing programs will need to be expanded. The town must take a greater share of the cost and responsibility needed to service the elderly, RSVP and other programs notwithstanding. Of particular concern is an expected increase in the number of residents requiring nursing homes and similar facilities.

Special Needs Services

There are four group homes in Warren housing approximately 22 persons. Three of the group homes are for the developmentally disabled, comprising 18 of the total residents. The remaining four persons are in a home for chronic and persistent mental illness. The East Mental Health Center serves as a regional mental health care facility.

The needs of the mentally and physically disabled should be carefully attended to and planned for. The Town should assess the quality of services provided to these segments of the population, and in anticipation of a slight increase in numbers plan for and meet future needs. Non discriminatory housing and recreational opportunities must be available to all levels of mental and physical ability. Other Plan elements notably Housing and Recreation, Conservation and Open Space should be consistent and cross-referenced with this element.

Public Assistance

Public housing assistance is discussed in the Housing Element. Additional assistance provided by the Town and an East Bay service network includes coordination of several modestly funded Federal and State programs and distribution of direct monetary assistance and surplus food. Town staff carrying out these responsibilities is limited to a part-time Public Welfare Director.

Direct aid programs to those below the poverty level include GPA, (general public assistance) assisting individuals; AFDC (aid to families with dependent children), and medical assistance. Key programs administered through the regional Self-Help Program include heating assistance, emergency aid to avoid utility shut-offs, supplemental food, rent, medical bills, and food purchases (food stamps). Other programs include weatherization, referrals for elderly and child abuse, RSVP, substance abuse, and mental health care. Cases involving the latter are serviced by the East Bay Mental Health Center in Barrington.

Generally, the level of welfare aid is very limited due to financial and program constraints. These programs persist because of continued but modest Federal funds and standing conformance requirements. There is little public awareness or political willingness to focus on these needs, the adequacy of the relief provided and the sufficiency of the staffing. Warren may well find itself with increasing demands to meet these diverse needs. It will be necessary for the Town to plan for these expected increases with no assurance that Federal and State funding will be provided even at current levels.

Future efforts to provide assistance will feature limited financial aid with provisions for more comprehensive training to enable those requiring welfare assistance to obtain employment without sudden loss of all benefits. This more realistic approach should enable more individuals and families to more systematically enter or return to a more mainstream economic status.

Overall, there is need for more public education as to welfare needs and those factors that cause people to fall below acceptable economic and social standards. The Town must also more actively seek financial aid for this area of need. (See also the Housing Element.)

AFDC Basic Monthly Standard:

Family Size	Monthly Standard
1	$330
2	$449
3	$552
4	$629
5	$705
6	$793
7	$872
8	$960

III. POLICIES AND ACTIONS

Policy 1: Ensure the adequacy and affordability of fire, sewage, water, electric, education, governance, and other services in the permitting of any and all development. [Planning Board, Town Council]

Policy 2: Maintain the existing BCWA system as the primary water supply source.

> **Action 2.1** Encourage the BCWA to upgrade the infrastructure of the local water system. [Town Council, BCWA]
>
> **Action 2.2** Protect the watershed in order to maintain the safety of the Kickemuit Reservoir as a drinking water source. Enforce implementation of the watershed protection district. (See also the Natural & Cultural Resources Element). [Conservation Commission, Town Council, Planning Board, Zoning Board]

Policy 3: Promote water conservation.

> **Action 3.1** Work with the BCWA to increase educational programs in the public schools and to disseminate information townwide. [Conservation Commission]
>
> **Action 3.2** Develop a water conservation plan for municipal buildings and grounds. [Planning Board, Conservation Commission, Town Council]

Policy 4: Expand existing school capacity and programs to support with the District's strategic plan, State standards and to serve the student population including those with special needs. [Town Council]

> **Action 4.1** Incorporate special needs and programs within the consolidated plan. [Bristol Warren School District]
>
> **Action 4.2** Support the regional district in the implementation of the Strategic Plan. [Town Council]

Policy 5: Maintain school facilities; Plan school facilities and sites for optimum and safe accessibility, relationship to the bike path, and proximity to cultural and municipal resources; continue to support regional efforts.

> **Action 5.1** Support the District's Asset Protection Plan. [Town Council]
>
> **Action 5.2** Support the District in the development of a Facilities Plan. [Town Council]

Policy 6: Ensure continued permit compliance at the Warren Wastewater Treatment Plant.

Action 6.1 Monitor sewage treatment by referring to RIDEM's records and Save the Bay's periodic report on the performance of sewage treatment plants in RI, *The Good, the Bad and the Ugly*. [Warren Town Manager, Conservation Commission]

Action 6.2 Require semi-annual reports from the plant operators on plant performance relative to permit criteria. [Town Council, Town Manager, Conservation Commission]

Policy 7: Locate sewer extensions to avoid environmentally critical areas and maintain efficient sewage treatment. [Department of Public Works, Planning Board, Conservation Commission]

Policy 8: Restrict sewer extensions to the existing more densely developed portions of the town, in order to maintain rural character in the outlying areas, such as Touisset and east Warren.

Action 8.1 Develop Watershed Protection Overlay District Zoning Ordinance that eliminates sewer extension to designated areas with the intent to protect outlying areas from suburban sprawl. [Town Council, Planning Board, Conservation Commission]

Action 8.2 Require septic system inspection and maintenance in unsewered areas. Establish Wastewater Management Districts. [Warren Wastewater Treatment Facility, Planning Board, Town Council, Warren DPW]

Action 8.3 Enforce implementation of watershed protection district zoning, prohibiting sewer extensions to rural and agricultural areas of Warren, including Touisset and areas zoned R-40.(See also the Natural & Cultural Resources Element). [Conservation Commission, Town Council, Planning Board, Zoning Board]

Policy 9: Increase and maintain a high level of services for senior citizens and persons with special needs.

Policy 10: Ensure accessibility to all Town facilities by all physically and mentally handicapped persons in accordance with State and Federal Standards. In addition the Town should strive to go beyond these standards in serving the needs of seniors and residents with special needs with respect to additional facilities and services needed and/or requested by these segments of the population.

Action 10.1 Comply with all State and Federal accessibility standards and anticipate future needs and requirements. In so doing, maintain open communication between the Town and persons representing the handicapped population. [Town Council, Planning Board, Building Inspector]

Policy 11: Continue to provide necessary referral services for the mentally handicapped and their families to the East Bay Mental Health Center

Action 11.1 Consider hiring a full-time municipal staff member to administer referral

services or expand the role of the Public Welfare Director to a full-time position that includes these duties. [Town Council]

Policy 12: Maintain the George Hail Library and continue to expand and update its resources; plan for long-range library needs beyond the capacity of the George Hail Library. [Library and Town Council]

Policy 13: Provide sufficient administrative and other staff to increasingly improve the efficiency of local government and services for the betterment of the Town and to comply with applicable State laws.

Action 13.1 Study ways to increase the efficiency of Town government including the establishment of a Town Charter Commission to review and rewrite the charter, incorporating recommended restructuring of Town government. [Town Council]

Action 13.2 Review and rewrite job descriptions for Town staff. [Town Council]

Action 13.3 Evaluate the need for at least a part time planner to assist the Planning Board and Conservation in the implementation of their responsibilities. [Town Council, Planning Board, Conservation Commission, Town Manager]

Policy 14: Maintain, plan for and where needed expand Town-owned facilities.

Action 14.1 Develop a comprehensive Capital Improvements Program (CIP) that includes projected facilities, equipment and service needs over a five year period. [Town Manager and Town Staff, Town Council, Planning Board]

Policy 15: Cooperate with neighboring communities in the provision of fire fighting, emergency, education, and other necessary public services.

Action 15.1 Coordinate the capital improvements program (CIP) and Town services with adjacent towns. [Town Council]

Policy 16: Coordinate new industrial and commercial development as well as housing starts and monitor the sufficiency of the power grid to meet increased demands.

V. FACILITIES IMPLEMENTATION SCHEDULE

	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 1: Ensure the adequacy and affordability of services	*			PB, TC
Policy 2: Maintain BCWA system as the primary water supply source	*			BCWA
Action 2.1 Upgrade infrastructure	*			BCWA, TC
Action 2.2 Protect watershed	*			CC, PB, ZB, TC
Policy 3: Water Conservation	*			
Action 3.1 Education programs in schools		*		CC, BCWA
Action 3.2 Municipal water conservation plan	*			PB, CC, TC
Policy 4: Support the regional school district's Strategic Plan	*	*		TC
Action 4.1 Special Needs programs	*			BWSD
Action 4.2 Support Strategic Plan	*	*		TC
Policy 5: Maintain School Facilities	*	*		BWSD
Action 5.1 Support District's Asset Protection Plan	*	*		TC
*Action 5.*2 Support District in development of a Facilities Plan		*		TC
Policy 6: Ensure continued permit compliance at the Wastewater Treatment Plant	*			TC
Action 6.1 Monitor plant performance	*			Town Manager CC, plant operators
Action 6.2 Require semi-annual reports	*			Town Managers, TC plant operators, CC
Policy 7: Avoid environmentally critical areas when extending sewers	*	*		CC, DPW
Policy 8: Restrict sewer extensions to existing, densely-developed portions of Town	*			
Action 8.1 Watershed Protection Overlay District Zoning	*			TC, CC PB
Action 8.2 Wastewater management district; septic system inspection and maintenance		*		Wastewater treatment Facility, TC, PB,CC Warren DPW
Action 8.3 Enforce limits of sewer extension	*			TC, CC, PB, ZBR, Zoning Officer
Policy 9: Where necessary increase and then maintain a high level of services for seniors	*	*		Senior Center, TC
Policy 10: Ensure accessibility for all Town facilities	*			
Action 10.1 Comply will accessibility standards	*			TC, PB, Building Inspector

	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 11: Referral services to East Bay Mental Health Center				
Action 11.1 Consider hiring staff to administer referral services		*		TC
Policy 12: Maintain, plan for and expand library	*	*		TC, Library
Policy 13: Address staffing needs in local government	*			TC, TM
Action 13.1 Study efficiency of local government; town charter commission	*			TM, TC
Action 13.2 Review and rewrite job descriptions for town staff	*			TC, TM
Action 13.3 Evaluate need for part-time planner	*			PB,CC,TC,TM
Policy 14*:* Maintain, plan and where needed expand Town facilities	*	*		
Action 14.1 Develop and implement CIP	*			TM, Town Staff, PB,TC
Policy 15: Cooperate with neighboring towns in the provision of services	*	*		TC
Action 15.1 Coordinate CIP with adjacent towns	*	*		TC
Policy 16: Monitor the availability of power to meet growth		*		Electric Company, PB

APPENDIX

Town Building Inventory:

Facility	Location	Status .
Town Hall	Main Street	in use
Wood Street Animal Shelter	Wood Street	in use
Liberty Street School	Liberty Street	closed
East Bay Government Center (former Joyce Street School)	Joyce Street	newly redone-poorly assigned
Mechanics Fire Station	Water Street	in use
Narragansett Fire Station	Vernon Street	in use
Baker Street Fire Station	Baker Street	now museum
Rough & Ready Fire Station	Metacom Ave.	in use
Touisset Fire Station	Touisset Road	in use
Rescue Station	Miller Street	in use
Transfer Station	Birch Swamp Rd.	in use
Highway Garage	Birch Swamp Rd.	in use
Highway Storage Building	Birch Swamp Rd.	in use
Burr's Hill Park Storage	Water St.	in use
Jamiel Park Storage	Wood Street	in use
VFW Building	Metacom Ave.	leased to VFW
Wastewater Treatment Plant	Water St.	in use
Kickemuit Middle School	Child Street	in use

Child Street School	Child Street	for sale
Hugh Cole School	Hugh Cole Road	in use
Mary V. Quirk School	Main Street	in use/status unclear
Main Street School	Main Street	Highschool technology center

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10. *Recreation, Conservation, and Open Space Plan, Town of Warren, Rhode Island*, Recreation, Conservation, and Open Space Plan subcommittee of the Warren Conservation Committee,1990.
11. *Harbor Management Plan for the Town of Warren*, Warren Harbor Management Planning Committee and URI Coastal Resources Center, October 4, 1989.

WARREN COMPREHENSIVE PLAN
ECONOMIC DEVELOPMENT ELEMENT

June, 2003

WARREN ECONOMIC DEVELOPMENT

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I. INTRODUCTION

The Economic Development Element inventories and analyzes employment statistics and trends; gives a breakdown of the tax base; assesses the status of industry and manufacturing; discusses the location and condition of retail commerce and recommends policies and actions.

Economic development planning in Warren has been haphazard at best. While there are many worthwhile economic development opportunities, there is no strategic plan that unites and the disparate and sometimes conflicting components around a common theme. The Warren Comprehensive plan continually recognizes the importance of Warren's natural resources and its nautical heritage in shaping the past, the present and the future. Economic development must realize that a healthy economy requires a healthy ecology. Local strategies can capitalize on the Town maintaining and enhancing its maritime and agrarian heritage, waterfront opportunities, natural resources and sense of place. Any tourism related economic development depends upon Warren being able to protect its character and market itself in this light. Economic development strategies must also be consistent with the goals of the Natural Resource and Land Use elements. To this end, the plan discusses economic and zoning incentives to encourage active agriculture.

In the regional context Warren's economy and that of the neighboring East Bay communities represent a single economic unit. This economic unit relies on a common tourism base, employment centers, commercial and industrial areas and transportation networks. Cooperative efforts that enhance this economic base such as the Mount Hope Enterprise Zone, the East Bay Economic Initiative, Bristol County Chamber of Commerce and the East Bay Chamber of Commerce can all help to revitalize Warren's economy.

A. OVERALL GOALS

To strengthen and maintain a healthy local economy characterized by diverse employment opportunities, low unemployment and a strong tax base.

Promote a sound local economy that draws upon and enhances the Town's unique natural and historic features.

II. INVENTORY AND DISCUSSION

A. ECONOMIC STATISTICS

According to the 2000 census data the population decreased by 0.2 percent between 1990 to 2000 (11,385 to 11,360). The median-selling price of a single family home in 1980 was $57,000. By 1990 this price more than doubled, rising to $124,937. During the last decade however it has remained relatively constant with the 1999 median selling price set at $130,500.

Warren's unemployment rate rose sharply from a low of 3.1 percent in 1988 to a high of 11 percent in 1991. During the latter part of the 90's the figure continued to drop to a low of 3.7 percent in 1999. According to the Bureau of Labor Statistics the unemployment rate for 2000 was 4.1 percent. It is interesting to note that although the Town's population and labor force

remained relatively level, there was substantial movement within the various employment categories. Most notably, employment within the manufacturing sector declined from a high of 2,434 in 1989, to a low of 1,212 in 1999 (-50.21%).

Warren's economic identity as a manufacturing town is largely a thing of the past, and, as industries leave for warmer, cheaper pastures, there is not a solid base of similar replacement industries. In order to cut the unemployment rate and keep pace with regional and national trends, Warren must stress its amenities for the siting of service and light industries as well as marine-related business. In order for such efforts to benefit local residents, the workforce must be equipped with necessary skills. Gone are the days when a basic high school education was preparation enough for available employment in local manufacturing industries. Today's job market often demands specialized skills, underscoring the importance of vocational, computer and other programs. Investment in an educational system that keeps pace with changing employment opportunities is investment in the town's economic development.

Table 1 shows the major employers in Warren and the number of persons employed in 1991 and in 2000.[1]

Table 1 Warren's Major Employers

Employer	**# persons 1991**	**# persons 2000**
American Tourister (P&M Industries)	677	400
Blount Marine	125	
Lloyd Manufacturing	100	
Tillotson Pearson (TPI)	478	280
Laidlaw Transit	100	100
RJ Manufacturing Co.	450	320
Ames Department Store	**	100
Grace Barker Nursing Home	100	100
I. Shalom Co. Inc.	175	100

In 1991 the listed companies listed above accounted for 2205 jobs, or 46 percent of all those privately employed in Warren. Currently, this number while still substantial represents percent of the privately employed workforce.

Tax generation in Warren reflects the diminishing role of industry in the local economy. Industry accounts for only roughly 5.5 % of the tax base and commercial development for 16%. The bulk of the tax burden falls on residential properties, which pay 66% of the tax. Motor vehicles account for 9% and utilities for 3 percent. It is a well-documented fact that residential

[1], Rhode Island Department of Economic Development, February 1991. ***Rhode Island Business Firms with 100 or More Employees.***
Rhode Island Economic Development Corporation, March 2000. ***Rhode Island Business Firms with 100 or More Employees.***
Personal Communication Lloyd Manufacturing, Blount Marine, American Tourister.

development escalates the costs of providing education and other government related services.[2] By way of example, Warren's average, annual (1995) cost to educate a student was $7,580,[3] yet the average annual tax on a single-family residence for the same time period was $2110. For a household with one child in the school system, this represents a deficit to the Town of $5470.

Table 2 lists the estimated median family income for Warren for the year 2000. AT $51,560 it is roughly equivalent with the state's median.

Table 2. 2000 ESTIMATED FAMILY INCOME

Location	Estimated Median Family Income (HUD)		Maximum Affordable Monthly Housing Cost by % of Family AMI			
	Annual	Monthly	30%	50%	80%	100%
Rhode Island	$51,531	$4,294	$386	$644	$1,031	$1,288
Warren	$51,560	$4,497				

B. MANUFACTURING/INDUSTRY

For over a century, Warren has relied on manufacturing and related industry as its major source of local employment. While manufacturing is still the leading local employment category, the decline of the regional textile industry over the last half-century and the more recent departure of other manufacturing concerns has reduced the number of jobs. Labor-intensive manufacturing is clearly not the wave of the future. Despite the decline in manufacturing, it still accounts for about one third of the private sector employment in the Town. These industries although not as prominent as in the past carry on the legacy of shipbuilding and textile mills that shaped the town. In recent years, a number of firms have left Warren. Among the most recent and prominent of these departures are Carol Cable and Narrow Fabric. Despite the initial abandonment of these sites they have now been reoccupied by Display World and Warren Electric respectively.

With intensive, heavy industry quickly dying out as a major economic factor throughout the northeastern United States, Warren must try to attract light industry, high tech and service-related concerns. In doing so, the Town must clearly evaluate its potential in the context of the attractions of the entire region. Marine-related industry should be a priority. Perhaps the most important factor is for sites in Warren to be seen as competitive with similar or larger sites closer to routes 6 and I-195, and with other mill buildings in neighboring towns and cities.

[2] Kevin Kasowski, February 1993. As summarized in "The Costs of Sprawl Revisited" PAS Memo, American Planning Association, Washington D.C.

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[3] Roger Gaspar, Administrator 1997. Bristol Warren Regional School District.

Reuse of the Carol Cable site by Display world provides an example of how government and private industry can work together towards a common goal. The former Carol Cable facility is a 240,000 square foot building located on a 10.4- acre site on Metacom Avenue. The building was constructed in 1899 and was used as a textile mill until1968. From 1968 until 1990, the site was used for the manufacture of wire and cable products. From 1990 until 1995, manufacturing operations ceased and the building was used as a warehouse. A stigma remained on the property due to the presence of the residual contamination. A prospective purchaser, Display World Inc. as a prospective purchaser proposed to relocate retail display manufacturing operations, with 125 employees and plans to expand to over 200, to the site from outside Rhode Island. This relocation was contingent on resolving the environmental issues in an expedited manner consistent with the proposed use of the property. State and Town staff, knowledgeable about Brownfield provisions and other issues related to site reuse will be better able to assist new businesses to reuse former manufacturing sites.

Warren must be prepared to address the issue of businesses closing down. Plans should be made for future use of land and/or buildings that have been or will be vacated. This process is never easy--the agonizing process of deciding on reuse or demolition options has been carried out all across post-industrial New England.

Each large industrial building should be measured and tested for conversion to housing/ mixed use and other non-heavy industrial uses. Auxiliary buildings and overall site use must also be assessed. There may be a great deal at stake in the ways these sites are restructured, possibly providing opportunities to reshape the waterfront, the town core and other large, important parcels. Concentration on the reuse of these older buildings and their sites should be given priority over development of new sites.

Almost any use in Warren’s manufacturing zone requires a special use permit. This practice could be evaluated to see if there is another method to ensure compliance with performance standards and site design requirements. High worker's compensation costs in Rhode Island and limited vehicle access to potential sites has hindered the attraction of new industry--in an era marked generally by considerably less industry than before.

Central Industrial Concentration:
A large proportion of Warren's once prosperous manufacturing activities were clustered in the blocks behind Main and Child streets adjacent to the tracks. Most of the buildings survive but house far less activity than before. The large American Tourister complex sits on the edge of the Warren River, somewhat removed from these centrally located structures. Recent revisions to the zoning ordinance and map have established the American Tourister site as a “Special District”. This district includes that area of developed waterfront along the Warren River that consists of property now or formerly held by the American Tourister Company. Comprehensive development involving mixed use is encouraged and site plan review of development proposals is required.

In the center of Town, behind Main and Child streets, is an area of buildings and adjacent spaces that is currently underused and detracts from the town's image. Decisions will have to be made as to the extent manufacturing is expected to continue or be superseded by service/commercial

and warehousing activities.

This central location provides a possible opportunity to restructure blocks, roads and buildings to create a modest sized service/employment core in the area between Child and Franklin bounded roughly by Railroad and Arlington avenues on the west and east respectively. This area contains disturbed and unused land that has been used for industrial purposes in the past, but now needs to be better organized. The Town might effectively create an industrial/business park, enabling firms to consolidate shipping, promotion and other functions. A new approach road might be located along the power line right-of-way, providing truck access not only servicing a new commercial/light industrial park but also providing direct access to Main Street. One cautionary note must be added: the site still shows evidence of a wetland, now much degraded; special attention must be paid to drainage and to limited reclamation of this wetland. Increased use of this area and improved circulation would improve its appearance and facilitate physical and psychological connection of surrounding neighborhoods to the Town center. This will, in turn, increase use of Main Street and encourage pedestrian traffic. Existing residential units on the periphery of this area should be well buffered and allowed as grandfathered uses.

The benefits of such a central industrial park are many. Most major roads lead to the site; it is located adjacent to the Government Center and Main Street core; services are within easy access; existing businesses in the area allow for centralization of services, shipping and deliveries; the adjacent bike path is accessible to employees; and the Rhode Island Public Transit Authority (RIPTA) Park 'n' Ride facility abuts the area, providing easy commuter access. The Town should consider targeting this area and linking it to the revitalization of four to six blocks of Main Street and related blocks of Child Street.

The Waterfront Plan and the Downtown Revitalization Plan provide further insight into the development objectives of these areas.

Metacom Avenue

This small industrial area reads as a southward extension of Display World but is detached, separated by the Rhode Island Department of Employment Security (DES) office, farmland and Kickemuit Village. As Metacom has grown as a strip retail area, some industrial uses have carried on as holdovers from the pre-strip era. The area is difficult to service due to heavy traffic and the need to realign, or otherwise deal with the traffic issues on Route 136.

Market Street

Warren's industrial development has occurred without central planning, frequently taking prime agricultural lands and ignoring existing industrial areas with infill or redevelopment potential. For years, "industrial" development has been targeted for the area along upper Market Street. Today, much of the Market Street area has an ambiguous identity, a mix of manufacturing, active and vacant commercial and residential uses, and some of Warren's most scenic and historic property. These conflicting uses and the importance of significantly improving the attractiveness of Warren's northern "gateway" suggest that remaining parcels along Market Street, particularly those with access or views to the water need to be carefully planned. Unfortunately, the development of Nunes Farm as a PUD has eliminated many of the possibilities once envisioned for this area. An area zoned for manufacturing is located on the east

side of Old Market Street.

The east side of Route 136/Market Street is occupied by several highway-related industries and services dominated by TPI Composites (manufacturer of sail boats, wind turbine blades and exercise machines), and vehicle sales and storage. The size and siting of these facilities determine the character of the northern edge and approach to town. There is some potential for service/commercial development on the west side of 136. The Town must determine what the overall character of this corridor should be and not allow it to develop in a piecemeal manner.

This area is the primary service/commercial area in Warren. It also contains significant new industry. The existence of industry mixed with service/commercial and transportation-related uses have already conditioned this linear section of Town. Additional industry or related uses could potentially locate in this area. However, there is a need to establish more rigorous standards with more unified setbacks and buffering from Market Street; to relate area requirements to the configuration of the land between Market Street and the wetlands to the east; and to set clear standards for buffers from adjacent housing. The scale of development is already larger than the business uses along Metacom and uses should differ between the two areas. Metacom is dominated by set back roadside businesses; Market Street should be the location for complexes built well off of the main road with internal circulation.

Sewage Treatment, Water Supply & Access

Industry should locate only where sewer service is available. In keeping with the Land Use, Natural Resource and Facilities Elements, a core area for the extension of sewers and water should be established that does not jeopardize the rural character of eastern Warren. Extensions into those areas that are currently zoned R-40 should not be permitted.

Businesses should be monitored to conform to State and local environmental standards and should pay special attention to their effects on neighboring residential areas. Concerns include vehicular noise and congestion, odors, smoke or fumes, shadows, toxic and hazardous substances, and unsightly materials.

Access to commercial/industrial sites should be as direct as possible and the Town should cooperate in cases when there is the possibility of creating new access roads. No new sites should require truck and employee access through rural or residential areas and all abutting residential areas should be buffered.

C. COMMERCE

Commercial activity is concentrated on Main and Water streets and on Metacom Avenue, with less defined pockets on Child and Market streets. Figures and maps contained in the Land Use Element depict existing zoning. Areas currently zoned for business include village business (VB) and business (B). In addition certain business uses are permitted in the waterfront zone and the special district (S) and within the manufacturing zone primarily by special use permit.

Warren's central business district is typical of the traditional American Main Street where civic buildings and proud two and three story retail structures historically defined a vibrant town

center. Like so many others, this Main Street has declined as a center of retail activity in recent decades. Metacom Avenue is a linear strip of post-war franchises and a small shopping center.

Additional retail sites in Warren are extensions of the others or are local neighborhood facilities. Retail uses have existed for decades in older buildings and, in some instances, owners of commercial properties seem to have grown complacent. This is due, perhaps, to the fact that an adequate living can be made from buildings that are already amortized or have relatively low rents.

In general, the Town's commercial vitality suffers from inadequate maintenance, modest expectations, lack of reinvestment, and passive marketing. Warren's composite commercial image is of a place locked in an earlier time. While big box retailers have certainly siphoned off significant growth potential, this alone cannot be blamed for the stagnation of the retail economy. In order to effectively address the problems facing Warren's retail economy and offer potential solutions, the following analysis breaks it down into its component areas.

Main Street/Water Street

Historically, Main Street has been the commercial and municipal heart of Warren. It remains the town's municipal center but has declined commercially. While a few businesses continue to fare well, retail business in general has a high turnover rate here and shopping opportunities are limited: groceries and household goods are largely unavailable.

Heavy traffic and perceived parking difficulties discourage some residents from using the downtown Main Street area. The parking "problem" is generally overstated and does not truly reflect a shortage of parking spaces. Parking and related issues and solutions are discussed in greater depth in the Circulation Element.

Due largely to insufficient reinvestment and marginal upkeep of downtown commercial buildings, the area has a rather worn image. The loss of vitality is manifested in underused upper floors, spotty maintenance, haphazard storefront modifications, an overall tired appearance, and insufficient economic life relative to the number of blocks and buildings designated as retail. In short, it is a classic Main Street problem area in need of reinvestment, management and revitalization.

In planning terms, Water Street has generally been treated separately from Main Street. The economic activity of Water Street is more diverse and specialized, concentrating on marine-related business, restaurants and the sale of antiques. In the past, Water Street played a subordinate role to Main Street. Not long ago, numerous taverns were a key part of the economic life of Water Street, giving it a somewhat shady image in contrast to Main Street, which was clearly the municipal, commercial and cultural heart of the town. In recent years Water Street has been "discovered" by antique dealers, artisans, restaurateurs and others drawn by its historic charm and renewed acceptability. Currently, the economic image of Water Street is healthier than that of Main Street.

Main Street:

Over the last two decades a Main Street revitalization process has evolved, initiated by the National Trust for Historic Preservation and implemented throughout the U.S. and Canada. These programs concentrate on changing attitudes; stress reinvestment and common marketing, seasonal promotions and hours; and advocate storefront restoration, better sign design and placement, and use of historically based lettering. Usually a Main Street manager is hired. This type of program could work well on Warren's Main Street, especially if targeted for a limited area. The restoration and revitalization of a few key buildings would herald a change of attitude and probably spark a widespread effort up and down this historic street.

Water Street:
As the heart of the Historic District, Water Street's architectural character and consistency of the streetscape must be protected. Its antique shops, restaurants, artisan and carpentry shops, marine businesses, and historic nautical atmosphere make it the obvious focal point of any local tourism strategy. Water Street is attractive because of its small-scale buildings, diversity of activities and a distinct "realness." The street and adjacent side streets should acknowledge its many facets by allowing flexible uses and modifications that are in character with the prevailing mood of the street. Performance standards should be clearly stated to help retain desirable occupants, increase desired street life and encourage the gradual upgrading of buildings. It is a street shaped by incremental decisions and changes and should be recognized as such. Parking must be addressed by coordinating public and private lots into a common system with a distinctive sign system and consistent screen planting. Such an effort will go a long way toward dispelling the perception that parking is difficult and could become a catalyst for attracting visitors to Warren. The parking solution should include special parking areas for owners and employees, freeing up the prime lot and curbside spaces that are often occupied by those who work in immediately adjacent stores.

Downtown Revitalization:
The 1991 Economic Development Element called for the coordinated management of Main Street and a revitalization plan. The downtown area in need of revitalization is bounded on the north and east by the bike path, Campbell Street on the south and the Warren River on the West. Development and redevelopment within the area should be human-scaled and pedestrian-oriented with attention paid to creating or maintaining a clearly demarcated street line and cohesive streetscape. It is important that this be achieved without gentrification of the area. Through a revitalization plan the Town hopes to address the following issues:

1. Support a diversity of people and housing
2. Create a downtown aesthetic that accentuates the historical, cultural and architectural features of the area.
3. Encourage economic development that complements the local area and seeks to balance residential and commercial objectives.
4. Develop an efficient and coherent parking and intermodal circulation plan.
5. Provide for coordinated gateways into the downtown area.
6. Enhance the human scale aspect of the downtown area.
7. Create mechanisms for downtown revitalization plan implementation and continued resident and business involvement.

Metacom Avenue

Metacom Avenue has been the most successful retail area in recent years, attracting contemporary highway retail uses. The Ocean State Shopping Center and several franchise fast food chains have created a pattern of use and appearance previously not found in Warren. This strip is merely the northern portion of a more extensive strip primarily located in Bristol. A good deal of the Warren end is broken up into small parcels with more marginal uses. It is very likely that in future decades this area will undergo significant changes to accommodate larger tenants and/or a different set of road-related occupants. The strip is narrow, the commercial designation seldom extending more than 160 or 200 feet back from Metacom Avenue. This has limited the size of development, excluding tenants who need more extensive footprint areas. This depth limitation was put in place to protect housing located directly behind the commercially zoned land. To the west, a power line right-of-way, large cemeteries and marginal wetlands parallel the strip, further complicating rational land use.

This strip of small local concerns and franchises has developed in the last few decades. As such, it is typical of commercial highway strips all over the country. Its condition can be described and analyzed in terms of the size of the parcels; its proximity to adjacent residential neighborhoods; traffic volume, curb cuts and other traffic conditions; the age and uses of structures; occupancy rates; and image.

Normal use and the added burden of heavy north-south traffic flow that peaks during commuting hours have a strong impact on the strip. Small lots have resulted in an excessive number of curb cuts which, along with numerous intersections, can result in chaotic and frustrating motorist experiences, typified by poor traffic flow and long delays entering traffic and making left-hand turns. Road improvements by the State are being studied. The Town must actively participate in the DOT decision-making process to insure that local objectives are integrated into improvement plans.

On the surface, the strip has a relatively shiny modern image marked by fast food franchises and other well recognized establishments. When one looks more closely, many underused or vacant sites are evident, as well as sites which have not kept up with the times and look tired and ill maintained as a result. The image is lively, somewhat fragmented and very different from all other parts of Warren--with the exception of parts of Market Street.

In the future, more of this strip is likely to become dated as current uses are superseded by newer franchises and larger scale uses elsewhere. The strip can change and accept new commercial uses through a process of replacement but will always be limited by the size of the parcels, the width of the road and the heavy traffic volume. It is unreasonable to expect the land to be zoned to encourage deeper lots. Such changes might improve commercial viability but would do so at the expense of the abutting neighborhoods. The limited depths of lots preclude the use of parallel service roads. Nevertheless, some attention should be given to combining curb cuts and better articulating intersections. The strip should not be allowed to expand to the north nor should these small-scaled uses and their development pattern be allowed anywhere else in Town. Landscape and design standards along with redevelopment incentives could improve the overall appearance

of the strip[4].

Other Retail Locations
In keeping with Warren's mixed-use pattern, many retail buildings are interspersed with residential uses on Child Street and the parallel portion of Market Street. As on Main Street, these facilities straggle away from the center and contribute to an appearance of low economic vitality. The area zoned for commercial purposes is probably too large, encouraging a dispersed pattern.

Pockets of retail uses are located at the intersection of Child Street and Metacom Avenue, at the north and south ends of Main Street, and intermittently on the northern end of Market Street. Many of these facilities are scattered in residential neighborhoods. On upper Market Street retail uses are located among service/commercial and manufacturing uses.

Service Commercial
In the past, the town relied heavily on manufacturing to employ many of its inhabitants and support the local economy. These times are largely over. The Town must look for other means of sustaining its tax base and providing employment as a part of the greater Providence regional market. Warren is well situated near the Interstate system and may have potential as a service center for the East Bay or as a regional distribution location. FedEx has recently located there.

D.THE WATERFRONT

Warren's waterfront area currently combines the character of a working waterfront with residential, commercial and recreational interests. The waterfront also blends into and helps to frame the ambiance of one of the first towns to be settled in the State of Rhode Island. Warren's waterfront shares in the early beginnings and history of the State, shows the maturity and some of the scars of a prominent position in the Industrial Revolution and provides a mirror of the economic roller coaster that has had the Town as its passenger since the early 1600's.

Warren's waterfront is one of the few genuine working waterfronts remaining in the state. The area zoned "Waterfront" includes that mixed-use area along and adjoining the Warren River for which water dependent uses are encouraged.

Recent development plans, however, call for the construction of two upper market multi-family developments on the harbor. These proposals echo a growing trend amongst coastal communities that has dramatically changed the character of their shoreline, often to their detriment. Questions have been raised about how best to develop the waterfront; single family residences versus multi-family, mixed usage, multiple stories, public access rights, shoreline visibility, parking problems, etc.

While there is a core of more affluent residents who have invested in the area, attracted by both its location and its historic homes, it is still a neighborhood of predominantly elderly and low

[4] County Road in Barrington has undergone substantial improvements over the past decade and could serve as a model for refurbishment of the Metacom Strip.

and moderate-income families. The social implications resulting from their possible displacement are of concern and a potential burden to the Town. Affordability and lack of housing choice are already community issues confronting Warren. Similarly, traditional waterfront businesses will find increasing pressures on the practicality of continuing to do business in the area. Unless a positive action plan is initiated, it is likely that the current diversity of users and residents of the area will be diluted and its unique character compromised and lost forever.

Future planning, which provides a vision and decision framework for development and establishes realistic short and long-term parameters to guide the area's future development while maintaining and enhancing the waterfront's abundant resources is important to the area's preservation.

General goals for the area include:

- Respecting the needs of area residents and business owners,
- Removing blighting influences in the neighborhood,
- Preserving and enhancing the area's unique inventory of historic and cultural resources,
- Stimulating the compatible use of underutilized land,
- Protecting and encouraging water dependent and related uses along the waterfront,
- Safeguarding the rights of free and expanded access to the water,
- Providing improved amenities and services throughout the area,
- Establishing a business climate conducive for attracting and encouraging compatible uses to the area, through marketing and business incentives,
- Developing an improved stewardship of the neighborhood and its streetscape,
- Designing strategies to provide increased job opportunities and job training for area residents and business.
- Targeting the partnering of private and public funding mechanisms to implement these goals.

Water-Dependent, Marine and, Boat Building Industries

There are around 20 marine related businesses in Warren including boat building, marine service and sales, dock building, marine consultants, marine service, marine transport and seafood processing. The traditions of Warren and Bristol favor continued boat building. Blount Marine, TPI Composites, Dyer Boats and other ongoing marine businesses support continued activity in this field. The East Bay Economic Initiative is a collaborative effort to promote ship building in RI to the national and international community. This initiative, which described in more detail under section "I" below, may help Warren capitalize on its ship building traditions. Growth in this industry and other marine businesses could help to replace the loss of jobs in other sectors of the manufacturing economy.

E. AGRICULTURE

Warren has several farms and extensive fields used for nursery plantings. The importance of retaining some of these open spaces has been recognized both locally and at the State level. The trend toward purchase of development rights, initiated locally by the land trust, should be

encouraged. The town recently purchased the development rights to the Manchester Property, 23 acres located off Touisset Road.

Farming as an active, productive activity should be encouraged as well. Farmland contributes to the local economy and costs far less in municipal services than a comparable acreage of residential land. While still not a significant percentage of the job market, it is interesting to note that jobs within the agriculture sector of the economy increased 67 % between 1989 and 1999.[5] The Town should consider establishing a Community Garden where individuals or families can have their own plot and where others buy into a Community Garden Cooperative at which qualified farmers grow vegetables for a group of shareholders. Fresh produce could be distributed weekly in exchange for shares, which are purchased up-front, paying for the use of the land, labor and seeds. Such programs already exist in Rhode Island

The zoning ordinance should be evaluated for ways in which it can be made easier for farmers to market and sell their products. RIDEM's *Farming and Forestry Strategies a* new technical assistance document contains useful suggestions and model ordinances. [6]

F. TOURISM:

Warren is located between major east-west traffic (I-195) and well-established tourist destinations such as Newport and East Bay shore and beach attractions (Little Compton, Horseneck Beach, Westport, etc.). At times, Bristol is also a tourist destination. Warren's attractions are largely hidden from direct view and, being more modest in scale, require careful promotion. By upgrading Main Street and Water Street and improving the gateways to town, the town can improve its image and become a more frequent stop for summer visitors.

Tourism in Warren must be more directly recognized, encouraged and carefully planned so that the unique qualities of the Town are retained. Warren does not want tour buses, but it should encourage visitors who come for its antique shops, restaurants, boat trips, and bay cruises. Above all, there must be greater recognition of the superb architecture found primarily between Main Street and the waterfront and a conscientious effort should be made to maintain these buildings as tourist attractions in their own right. Central to this effort is recognition of the importance of the continuity of buildings and blocks. New parking lots should not further disrupt the built fabric and historic buildings should certainly not be removed for the construction of parking lots.

Water Street has a special character. Artisans' studios, antique shops and other storefront establishments, small professional offices, and restaurants all proliferate along Water Street and are sprinkled throughout the surrounding residential streets. Warren is an attractive location for these activities simply because it hasn't been "discovered" yet. Water Street could easily be discovered, filled with boutiques and trendy eating places, and gradually transformed into a fashionable place. This would be very unfortunate. Warren must adjust its zoning to be more permissive to key land uses without opening the area up to unwanted speculation and change. A

[5] See Table 1, in this Element

[6] Taintor, Frederick, May 2001. Farming and Forestry Strategies. South County Watersheds Technical Planning Assistance Project. A cooperative venture with EPA, RIDEM, Washington County Regional Planning Council, RI Rural Lands Coalition, South County Watersheds Partnership and URI.

balance must be established between encouraging upgrading and increased economic activity on one hand and maintaining restraint and control to insure that the area is not gentrified and homogenized with a plethora of upscale boutiques and coffee shops.

A modest brochure highlighting the diversity of historic, culinary, retail, environmental, and scenic attractions would help promote Warren as a place to visit.

Tourism related recommendations from the Waterfront Plan are listed below.

1. Develop a joint program for Heritage Tourism opportunities to serve as a viable economic force within the community and the region,
2. Initiate a well-designed system of wayfinding within the community to include general signage as well as interpretive displays and plaques for historic sites,
3. Establish a centrally located visitor information kiosk staffed by volunteers,
4. Encourage owners on the waterfront, where appropriate, to develop dockage facilities to encourage and service recreational boaters,
5. Explore the feasibility of establishing a terminal for as part of the proposed Narragansett Bay ferry system,
6. Promote the establishment of a small Hotel in the community to take advantage of an apparent demand in the area,
7. Encourage the establishment of more Bed & Breakfast facilities,
8. Investigate ways to restructure and expand the existing core of antique stores into a more cohesive entity, (Putnam and Pomfret, CT. are prime examples.)
9. Support the already strong presence of working craftspeople and artists within the community,
10. Capitalize on the rich ethnic life found in Warren by encouraging festivals, fairs and other events etc.

G. ZONING

To encourage diverse use of existing industrial buildings and allow for new building or building modifications on industrial and adjacent sites, Warren must change its zoning rules. Zoning should reflect larger scale intentions and non-conforming uses should be recognized as such. The Town must reduce the number of small districts created to recognize an existing use or facilitate a new use. In effect, Warren has spot zoning, which should be eliminated. Zoning changes are also needed to condense retail areas; perfect dimensional and other performance standards specifically suited to Warren's conditions; and establish requirements for siting, tree planting, buffering and new access roads.

H. LOCATION, INFRASTRUCTURE, SERVICES

In assessing Warren's location and ability to attract new industry and/or service/commercial businesses, it is necessary to examine its regional position, vehicle accessibility, the availability of land suitable for development, proximity to services, accessibility of utilities, and the general climate of the town and region relative to new development.

Warren is well situated within a highly accessible portion of southeastern New England; it is close to I-195 and to the ports of Providence, Fall River and New Bedford. It is less well positioned in terms of local roads and the availability of large parcels of land. With its intricate

land use pattern, Warren does not have large areas of land to allocate for major new commercial or industrial uses. There are several large buildings which can be reused or whose sites can be used for new ventures, providing immediate and long-term employment opportunities. A few currently open lands also have potential for intensive development. Within the regional market, Warren does not have prime conditions conducive to large- scale development. It does have limited attractiveness for specialty businesses and for locally based ventures. Water and sewer service is limited to the most developed parts of town. Prohibiting sewer and water extensions to eastern Warren will help to protect the Town's more rural areas from urban sprawl. This is essential if Warren is to capitalize on tourism as a potential area for future economic growth.

Testing to determine the conversion capability of older buildings is recommended. The Town must balance two objectives: The first is the coordinated development of vacant land within the built-up section of town. This could include tax incentives, zoning considerations, and economically attractive packaging. The other objective is to avoid continued piecemeal development of outlying parts of town. This passive process benefits individuals at the expense of the entire town and has eroded rural character in the east and north.

I. REGIONAL EFFORTS

Warren is a small town within a complex metropolitan area. Local economic prosperity depends to a great extent on the market in the entire Providence - Fall River - Newport region. As a part of this region Warren has traditionally relied on blue-collar employment. As such, this has historically placed Warren among the most industrial cities and towns--somewhat like the towns of the Blackstone Valley. The neighboring towns of Barrington and, to a lesser extent, Bristol are more prosperous--noted, in Barrington's case, for higher income residential neighborhoods and, in the case of Bristol, for a more noteworthy historic town plan, stately houses and general appearance. Warren must evaluate its position relative to these towns and the region and determine its image and set economic goals accordingly.

In recent years, as Warren has lost industrial employers, this segment of the tax base has eroded. Today industrial land use provides less than 6% of the tax dollars collected whereas commercial uses now generate over 15%. This is a clear indication of the need for a more diversified economy. There are several regional organizations that can help Warren assume a more prominent position in the East Bay economy.

Mount Hope Enterprise Zone[7]

An Enterprise Zone is an economically distressed region within the State that is characterized by high unemployment rates and unusually high poverty rates. The designated area usually suffers from the closing or relocation of one or more large employment facilities, leaving workers stranded. The Enterprise Zone Program was established by legislation to promote business retention and expansion in distressed areas of the State. The main objective of the program is to stimulate growth in the private sector by rewarding the creation of new, full time jobs. The program is designed to provide a comprehensive and aggressive package of incentives and tax

[7] Taken from www.townofwarren.org/enterprise and Chrisman Alan, August 2001. *Mt Hope Enterprise Zone*. For additional information of specific incentives and requirements of the Mount Hope Enterprise visit the website or contact Mr. Alan Crisman at 401-245-4222 or jacrisman@aol.com

relief to businesses willing to relocate or expand into an Enterprise Zone. Included in the package of incentives are various financing alternatives, job training programs, and permit expediting on both the State and local levels.

The Mount Hope Enterprise Zone comprises most of the industrial areas located in Rhode Island's East Bay region of Bristol County. Centered in the towns of Bristol and Warren, this enterprise zone has a base of approximately 1,200 businesses. Due to program requirements the number of businesses that could benefit from enterprise zone membership is between 350 to 500.

In addition to the tax credits available to all state approved enterprise zones, the Mount Hope Enterprise Zone provides several additional benefits. Unlike other zones in the state where the enterprise administration is assigned as a collateral duty to the municipal planner, this enterprise zone has its own manager whose sole function is to recruit and assist business firms in the area. This facilitates clear communication and proactive assistance between the enterprise zone office and the business community. The zone manager has knowledge of the financing alternatives available to member companies and essentially functions as a free consultant to assist in arranging capital acquisition. The office also administers a small, low interest, low-to-moderate income loan program for firms that need to acquire new equipment, increase their inventory or modernize their operation. This loan program has helped retain and create jobs for this segment of the community.

The Mount Hope Enterprise Zone has successfully helped firms wishing to relocate to the area. In addition the office has assisted a number of member firms to develop grant applications for many of the state-funded training programs. Grants are available for new hire programs, for upgrading technological skills and for improving a firm's competitiveness in national and international markets.

East Bay Chamber of Commerce and the East Bay Tourism Council[8]:
Two groups, the East Bay Chamber of Commerce and the East Bay Tourism Council provide valuable assistance to businesses in the East Bay area, including Warren. The East Bay Chamber of Commerce is a private, not-for-profit corporation made up of businessmen and women dedicated to preserving the competitive enterprise system of business and promoting business and community growth and development. It provides a wide range of services and constantly watches out for the economic health of its members and the entire community and applies for grants to augment its ongoing economic development and education programs. In addition the chamber promotes local businesses through advertising and at special annual events, and at under graduate orientation sessions at Roger Williams University. The Chamber also works with the Tourism Council to promote local tourism through brochure development and distribution and a planned expansion of the Warren Visitor Center. In addition they help to support the development of new overnight accommodations and attractions and keep members informed about local and statewide promotions, programs, attractions, etc. The Chamber is also involved in community service such as internships and mentoring.

The East Bay Tourism Council coordinates organizations and persons in the tourism industry or

[8] From www.eastbaychamberri.org

related activities and encourages the orderly growth and development of tourism within the East Bay area. They work with the Chamber to help maintain a website on Tourist attractions. Dining accommodations, antique stores etc.

The East Bay Economic Initiative

The East Bay Economic Initiative (EBEI) is a partnership of government and private organizations as well as businesses dedicated to promoting economic development and creating jobs for the marine industry of Rhode Island. EBEI was formed in 1993 out of the repeal of the Sales and Use Tax on boats. Within two years, employment in the industry rose 40 percent. "In 1997 $410,000 grant was awarded to the East Bay Economic Initiative (EBEI) to administer an International Marketing Program and Workforce Development Program for the marine industries of Rhode Island concentrated in the East Bay area. The collaboration of boat builders and other marine related businesses successfully developed a proposal to the US Department of Commerce Economic Development Administration (EDA) with the assistance from the RI Economic Development Corporation (RI EDC). The EDA has provided $300,000 with the rest of the funding coming from the Greater RI Regional Employment and Training Board ($50,000), Community Development Block Grants ($40,000), RI EDC ($10,000 in-kind) and EBEI ($10,000). These projects will expand the industry into the European market, increasing the demand for their products and creating more jobs for Rhode Islanders. The cities and towns of the East Bay contributed $40,000 in CDBG funds specifically for the training, $10,000 from Bristol, $20,000 from Portsmouth and $20,000 from Warren. Assistance will be offered to individual companies for the training sessions geared towards the specific skills their workers needed. Some companies have been working with the New England Institute of Technology to develop curriculums."[9] Between 1992 and 1997 gross revenues increased by, the industry increased its productivity to double its gross revenues. Hopefully, the collaborations that have developed for marketing and workforce training will support this growth into the future.

III. POLICIES AND ACTIONS

Policy 1: Revitalize Main Street and the surrounding area by improving marketing, encouraging reinvestment, restoring architecture, and redesigning signs and parking

> Action 1.1 Initiate a Main Street program with a paid staff person assist in the revitalization of Warren's downtown. [Town Council, Chamber, Warren Preservation Society, Massasoit Historic Association]

Policy 2: Encourage and facilitate residential use of upper floors of commercial buildings in the downtown area, especially on Main Street.

> Action 2.1 Allow mixed-use residential.
>
> Action 2.1 Promote code compliance, so that downtown buildings can be used for apartments. [Town Council, Planning Board, Building Inspector, Warren Project Pride]

[9] East Bay Initiative, 1997. Annual Report On the Sales Tax Repeal, Five Years of Success

Policy 3 Promote heritage- and marine-related tourism in Warren as a key economic development strategy.

Action 3.1 Coordinate tourist promotion with other East Bay communities and with State efforts; study innovative programs which have succeeded elsewhere; determine an appropriate and unique promotion concept and logo. [Chamber of Commerce, East Bay Tourism Council, Planning Board]

Policy 4: Encourage diverse activity on Water Street to enhance its historic, tourist and marine-oriented image. Such activities must be consistent with the Waterfront Plan.

Action 4.1 Revise zoning to encourage activities appropriate to the street.

Action 4.2 Encourage coordinated seasonal and yearly promotion of street-related activities.

Action 4.3 Assist with code enforcement to bring all buildings up to a common level of historically appropriate maintenance. [Chamber of Commerce, Planning Board, Town Council]

Policy 5: In conjunction with Bristol, study commercial activity on Metacom Avenue to determine future potential and desired changes and address related traffic concerns.

Action 5.1 Conduct an inventory of parcel sizes, use patterns, traffic problems, and occupancy rates and then assess alternate plans for the future of this strip to improve its marketability, appearance, image and traffic flow. [Planning Board, Chamber of Commerce]

Action 5.2 Investigate the possibility of rehab incentives, increased landscaping, more attractive lighting etc.

Policy 6: Devise appropriate incentives and planning controls for the American Touristor "special district" and manufacturing districts.

Action 6.1 Assess the potential of the special district and determine specific rules and procedures for each area's possible development so that adjacent housing is protected, town image is significantly improved and service and environmental standards are met. [Planning Board, Town Council, consultants]

Action 6.2 Market Street: Institute economic initiatives for the development of the east side of Market Street and the west side of Birch Swamp Road as well as portions of the northern end of the west side of Market Street; set specific areas for each sub-area so that the mix of uses, area requirements, buffering and conservation space to be set aside are clearly indicated with historic sites delineated within a special development district Master Plan. [Planning Board, Town Council, Chamber of Commerce, Enterprise Zone,

consultants]

Action 6.3 Town core: Determine the feasibility of this area as a renewed zone with its own Master Plan. [Planning Board, Town Council, Chamber of Commerce, consultants(completed)]

Action 6.4 Conduct a more detailed feasibility study on the potential reuse of Warren's larger manufacturing buildings. [Town Council, Building Official, Planning Board]

Policy 7: Ensure that any development or redevelopment of the Warren waterfront enhances not detract from its character as a mixed-use working waterfront**.**

Action 7.1 Encourage marine industry and commerce along the Warren River that respects the historic scale of the adjoining areas, especially Water Street.

Action 7.2 Investigate the types of marine activity that are appropriate and actively seek responsible firms. [Planning Board, Town Council, consultants]

Action 7.3 Anticipate and plan for any loss of non-marine industry along the waterfront; determine desired alternate land uses. [Planning Board, Town Council, consultants]

Action 7.4 Consider improvements to the waterfront that will increase public access and activities at the water's edge. [Planning Board, Chamber of Commerce]

Policy 8: Evaluate the tax and employment benefits of this plan and other economic plans and assess the probable extent of economic improvement.

Action 8.1 Project expected tax income increases against comparable changes in service, education and governance costs in evaluating potential economic development. [Town Treasurer, Town Assessor]

Policy 9: Develop policies, regulations and actions that are based on the fact that a healthy economy requires a healthy ecology.

Action 9.1 Evaluate economic development proposals relative to the extent that they improve and not detract from historic and natural heritage of Warren.

Action 9.2 Incorporate agricultural incentive provisions into the zoning ordinance.

IV. IMPLEMENTATION SCHEDULE

Policies/Actions	**ASAP**	**5 years**	**20 years**	**Responsible Parties**
Policy 1: Revitalize Main Street	*	*		
Action 1.1 Initiate Main Street Program	*	*		TC, Chamber, WPA, MHA
Policy 2: Encourage residential use on 2nd story of commercial buildings.				
Action 2.1 Allow mixed-use residential	*			PB,TC
Action 2.2 Promote code compliance	*			TC,PB building official
Policy 3: Promote heritage and marine related tourism as a key economic strategy.				
Action 3.1 Coordinate tourist promotion	*	*		Chamber, Tourism Council
Policy 4: Encourage diverse activity on Water Street that is consistent with the Waterfront Plan.				
Action 4.1 Revise zoning.	*	*		PB,TC Chamber
Action 4.2 Promote seasonal activities. Festivals.		*		PB,TC Chamber
Action 4.3 Manage through enforcement	*			PB,TC Chamber
Policy 5: Study commercial activity on Metacom				
Action 5.1 Conduct inventory, assess plans		*		PB Chamber
Action 5.2 Investigate rehab potential		*		PB Chamber
Policy 6: Incentives and controls for Special District and Manufacturing districts		*		
Action 6.1 Assess potential ;develop regulations		*		PB,TC
Action 6.2 Economic initiatives for Market Street		*		PB, Chamber, Enterprise Zone(EZ)
Action 6.3 Town Core Master Plan(complete)				
Action 6.4 Reuse study		*		EZ, consultant
Policy 7: Development or redevelopment of the waterfront must enhance its character as a mixed-use working waterfront.				
Action 7.1 Encourage marine industry and commerce	*	*		PB, chamber, EZ
Action 7.2 Seek appropriate marine activity and firms				PB, chamber, TC, EZ

Action 7.3 Plan for the loss of non-marine industry on the waterfront		*		PB,TC consultants, EZ
Action 7.4 Increase public access	*	*		PB, Chamber
Policies/Actions	**ASAP**	**5 years**	**20 years**	**Responsible Parties**
Policy 8: Evaluate tax and employment benefits of economic plans				
Action 8.1 Project tax increases against changes in service		*		Town Treasurer, assessor
Policy 9: Develop policies and practices that are based on the fact that a healthy economy requires a healthy ecology				
Action 9.1 Evaluate economic development plans and proposals in this light	*	*	*	PB
Action 9.2 Incorporate agricultural incentives into the zoning ordinance	*			PB,TC

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WARREN COMPREHENSIVE PLAN
HOUSING ELEMENT

July, 2001

I. INTRODUCTION

This Element provides an inventory and analysis of housing types, costs, needs, conditions, assistance programs, and other factors as they relate to the people and image of Warren. The Policies and Actions represent the implementation framework for meeting the following goals.

A. GOALS

- Provide a diverse and sufficient range of housing that is affordable to and meets the needs of Warren's diverse population.
- Ensure that permitted housing types and related dimensional and performance standards correspond to the carrying capacity of the land and to the character of each area of town.
- Project housing needs to determine expected yearly housing starts, housing types and price ranges, and to anticipate service costs and utility loads.
- Retain existing (historic) housing stock and strengthen neighborhood identity.
- Wherever possible integrate new housing construction with existing settlement patterns.
- Fully utilize all available buildings suitable for housing.
- Continue to seek federal, state and local funding to upgrade the housing stock town-wide, but especially in the downtown core.
- Actively support the objectives and action items of the Town of Warren Downtown Revitalization Plan.

II. INVENTORY

The following is a descriptive inventory of housing in Warren. It begins with descriptions of the different housing types and then discusses housing conditions, code enforcement, senior housing, housing assistance, costs and zoning.

A. HOUSING TYPES

Warren's housing stock is varied and represents a historic continuum from colonial times to the present day. It consists of historic houses in the downtown area, farmhouses, mill housing, two and three level duplexes and triplexes, tract or suburban developments, elderly housing and multi-unit condominium complexes. There are no high-rise or "slab" housing structures. These housing types can be described as follows:

Historic Urban Town Houses: There are many exceptional period houses downtown that represent a range of architectural styles from the initial settlement to the end of the last century. These historic houses are often found on blocks with less significant structures, parking areas or non-residential uses. [Located in Profile Area 6, the Historic District, and in more isolated locations along Main Street and side streets adjacent to Profile Area 6] -*See Fig. 2 Profile Areas after page 4 in the Land Use Element.*

Farm Houses: These structures are remnants of a lifestyle that has all but vanished. In some cases the entire farmscape is retained in good condition, although farming has been restricted in scope. These buildings and their associated barns, outbuildings, farmyards, and fields provide the town with a link to its past. They also serve as focal points throughout the less developed sections of Warren. [Located in Profile Areas 2, 3 and 11 along with associated farm structures and/or land]

Older Single Family (late 19th and 20th centuries): The small town quality of Warren derives, in large part, from these small single-family houses found all over town. They often feature porches that front on the street. [Located in all Profile Areas]

Mill Housing (One, two and three level duplexes or triplexes): These mill-related housing units are located on the short and often narrow streets adjacent to the waterfront and on either side of Child Street. Many structures are on small lots, some in the shadow of American Tourister and the former Carol Cable complex. They are generally in good repair although some show signs of neglect. [Located predominantly in Profile Areas 5 and 6]

Tract or Suburban Type Houses:
These post-World War II housing units have been built individually in places but more regularly in small subdivisions. This type of housing is most responsible for changing the character of the Town by spreading housing out across previously open fields. [Located predominantly in Profile Areas 2, 3, 4, 9, and 10]

Condominium Type Housing: These multi-unit planned developments have introduced a newer type of housing and ownership to Warren. The condominium type consists of middle-income units such as those along the Kickemuit River [Located in Profile Area 5] and housing for higher income levels along the southern Warren River [Located in Profile Area 7].

By and large, Warren is a comfortable place to live. Its neighborhoods provide a variety of housing types for many socioeconomic groups, and many of the neighborhoods provide a close knot and intimate environment to live and raise a family. On the other hand, the existence of so many small neighborhoods results in more "edges" than in a town with more extensive, homogeneous housing sectors. These edges are characterized by mixed use, with housing adjacent to mills, busy highways, vacant lots, and commercial and marine activities. This fragmentation has led to small zoning districts and, in some cases, spot zoning. It has also facilitated small-scale residential development in marginal locations. The zoning revisions of 1994 and 1997 consolidated some of these smaller districts.

The Town, using the tax assessor's database, inventoried its pre-20th century housing stock. Table 1 depicts the results of this analysis.

Table 1 Historic Housing Inventory

Years Built	Total number	Principal Street Locations
Prior to 1800	94	Water, State, Church , Main, Market
1801-1830	38	Water, Market, Broad, State
1831-1860	154	Main, Water, Wood, Union, Washington, Market, Wheaton, Touisset
1861-1880	173	Water, Wood, Church, State, Main, Vernon, Laurel Ln., Market, Child
1881-1900	331	Water, Main, Davis, Hope, Barney, Warren Ave, Martin, Bridge, Child, Metacom Ave. Arlington Ave., Brownell, Touisset

The oldest house was constructed in 1630 and is located on Union Street. Two other house pre-date 1700. One was constructed in 1662 and is located on Asylum Rd. The other was constructed in 1680 and is located on Water Street. Most of the houses that predate 1800 were constructed in the village area, but a few were built in the surrounding countryside. One hundred and seven of the 175 houses constructed between 1861-1880, 106 were built in 1880. The majority of house built between 1881 and 1900 were constructed in 1900.

According to the 1990 census there were 4,786 housing units in Warren. Of these, 2,413 (50.4%) were single family homes. Through 1997 an additional 177 units were constructed, bringing the 1997 total to 7,199.[1](Warren Zoning Officer)

B. CONDITION OF HOUSING STOCK AND CODE ENFORCEMENT

The diversity of housing types makes it difficult to generalize about health and building code standards and compliance. The overall appearance of housing in most sections of Town indicates pride, shown by good maintenance and yard upkeep. However, many units do not receive sufficient attention and appear well below code. In some cases, poorly maintained buildings severely detract from the overall appearance of neighborhoods and mixed residential and commercial areas. Yards cluttered with a variety of household materials, bulky junk and vehicles can also be eyesores, sometimes spilling over into wetland edges and open spaces at the end of dead end streets. Some duplexes and other multi-family units also exhibit less than ideal building and lot maintenance.

On single-family lots parking is accommodated on-site. In compact areas of town however, the lack of available spaces is a problem. Multi-family housing units and/or nearby commercial, industrial uses compete for spaces on streets, small lots and take over yard space for parking.

[1] Personal Communication with Bill Hanley, Warren Zoning Officer, 1998.

C. SENIOR HOUSING

Warren has a large senior population compared to other towns in the East Bay and Rhode Island as a whole. Table 2 lists the percentage of the population that is over the age of 65 for Bristol County.

Table 2: Bristol County's Percentage of the Population over 65

Bristol County	15.8%
Warren	**17.6%**
Bristol	16.3%
Barrington	13.7%

Source: *1990 U.S. Census, Selected Population and Housing Characteristics for Rhode Island Counties, Cities and Towns.*

Many senior citizens require special housing. The Warren Housing Authority administers 153 units of senior housing at Kickemuit Village that serve 185 persons. Eligibility is based on a federal preference system that takes three factors equally into account: payment of more than 50% of income for rent; substandard housing conditions; and involuntary displacement. There is a waiting list of between 75 and 80 persons. As the population of Warren and the region grows older there will be an increasing need for additional units. The Housing Authority is currently seeking land for additional senior housing through the U.S. Department of Housing and Urban Development (HUD).

There is potential need for market-built housing geared to senior needs. These small units could be clustered to reduce the building footprint and maximize open space. They have the added advantage of meeting projected need without impacting the school system.

For senior citizens in need of special care, Warren has a number of nursing homes. Currently, they provide sufficient facilities to serve the local population, but additional nursing homes and/or congregate care facilities will probably be necessary as the senior population grows.

D. HOUSING ASSISTANCE, AFFORDABLE HOUSING AND THE HOMELESS

Warren's has substantial lower-income housing needs that are serviced both locally and as part of an East Bay network of services. Locally, there are 199 units of Section 8-assisted housing that service about 300 persons, with a waiting list of 86. These units include a mixture of all four types of section 8 programs: certificate, voucher, housing choice and mod rehab. Within the next two years Warren Housing Authority hopes to convert all units with the exception of the mod rehab program to housing choice vouchers. The Warren Housing Inspector monitors and inspects all units under the section 8 housing.

In addition to lower income housing assistance, there is local awareness of the need for a permanent and sufficient shelter for battered women. This may have to be addressed regionally. A part-time Public Welfare Director administers various federally sponsored programs that monitor and assist eligible and needy individuals and families with no support staff. That office also periodically distributes surplus food.

Warren's current homeless population is estimated at 9 to 12 persons. No local facilities exist to shelter or otherwise care for these individuals and families.

E. HOUSING COST AND AVAILABILITY

Housing costs in Rhode Island have risen six times as fast as the median income in recent years, increasing the gap between housing costs and incomes. About 20% of Rhode Island households spend in excess of 35% of their income on rent. Diversity of the housing stock, different lot sizes, and the variety of urban and rural settings in Warren result in a great range of housing costs. Rental costs and starter home prices, however, are often beyond the incomes of local families. The federal standard for affordability is spending 30% or less of a household income on housing.

Warren's housing situation generally mirrors the State as a whole. The town has experienced increases in the number of single occupants, single parents, and households made up of unrelated occupants. As is the case statewide, the number of renter households has increased while production of multi-unit housing has declined. Inflation during the 1980s has had a significant impact on Warren and continues to have repercussions at the lower levels of the housing market. The recession in the late eighties marginally reduced housing costs and, to a lesser extent, rental costs. But long-term affordable housing problems still persist. Sharp reductions in federal funding over the past decade have been a major factor in declining production and availability of low-income housing in Warren and in the State. Table 3 lists the median housing and rental values from Bristol County from the 1990 census. Table 4 lists the single family selling prices for Warren from 1995 through June 1999.

Table 3: Median Housing and Rental Values for Bristol County

Median Value of Owner-occupied Housing Units	
Bristol County	$162,100
Warren	$139,700
Bristol	$151,000
Barrington	$190,900
Median Rent	
Bristol County	$417
Warren	$408
Bristol	$406
Barrington	$555

Source: *1990 U.S. Census, Selected Population and Housing Characteristics for Rhode Island Counties, Cities and Towns*.

Table 4: Single Family Selling Prices 1995 through June 1999, Warren RI.

Year	Number of Units Sold	Average Sold Price	Median Sold Price	Average Listing Price Prop. Not Sold
1995	52	133,323	120,500	176,489
1996	44	130,979	123,000	166,792
1997	57	139,014	126,000	187,863
1998	78	152,486	131,250	168,888
7-1-99	38	171,063	138,750	173,473

Source: RI Statewide Multiple Listing Service Inc.

The median-selling price for single-family homes in the past five years is actually less than the median value of owner occupied homes in 1990. The average assessed value for a single-family residence in 1997 was $124,4950. [2] The build-out analysis conducted for the Touisset area based its findings on a one-acre house and lot in a new subdivision being assessed for $200,000.[3]

F. SPECIAL NEEDS HOUSING

Consideration must be given to the housing needs of the physically and mentally disabled in the formulation of housing plans and in the actual development of housing units. The town should assess the proportionate need for this type of housing at regular intervals and ensure that special needs housing is developed accordingly.

G. ZONING

Warren has an intricate pattern of land use, which is reflected in many small residential districts and several residential zoning categories. In several large sections of Town it is hard to determine the zoning designation due to a mixture of uses. These transitional areas contribute to a confused sense of place and in some cases detract from the character and stability of residential areas. The re-zoning completed in 1997, attempted to consolidated compatible zoning boundaries and discourages the continued spread of non-conforming uses, particularly into residential areas.

III. ANALYSIS

An evaluation of housing in Warren must take into account a range of issues and needs including accommodation for older citizens; affordability; special needs; development trends; and homelessness.

A. HOUSING NEEDS

Warren's population will continue to require a wide range of housing as rental units, condominiums, and particularly, as single family houses. Housing should be accessible to a wide range of incomes with special attention towards "starter homes" and lower income

[2] RI Department of Administration , Municipal Affairs, Tax Report, 1997.

[3] Beta Engineering, 1999. Build-Out Analysis, Touisset Area of Warren. The basis for the $200,000 value should be documented.

affordability. This will be increasingly difficult for two reasons: 1) the national cost of housing is quickly placing home ownership beyond the incomes of many new families; and 2) Warren's location and amenities make it attractive to some professionals and upwardly mobile individuals looking for a place to settle.

Warren is an attractive community well within easy commuting distance to anywhere in the East Bay-Providence-Fall River area. The compact nature of the historic area and the integration of new housing with older dwellings contribute to its desirability. This attractiveness is likely to increase, bringing renewed demand for historic and new housing. Warren must determine the extent that it is willing to be changed by the influx of new homeowners whose expectations will place different demands on Town schools and services.

B. AFFORDABLE HOUSING

The affordability issue is a growing concern. The difference between being able or unable to afford a down payment and monthly mortgage costs is often quite small; a small increase in demand- and therefore cost- can be the deciding factor for first-time buyers. Housing affordability is not an issue just for those at the bottom of the socioeconomic ladder. Because of its varied housing stock, the number of small units and the relative age of its structures, Warren provides a pool of existing housing that should be able to respond to a limited influx of newcomers as retain a degree of affordability for existing residents and their offspring. At times, housing demand and inflation will couple to deny access to affordable housing. However, Warren should adjust to these demands reasonably well in comparison to neighboring towns.

Warren should consider innovative subdivision planning tools such as flexible zoning that allow houses to be located on smaller lots without a subsequent increase in the overall density of the subdivision. Unlike a conventional subdivision, flexible zoning also enables more creative lot layouts that help preserve the defining characteristics of the landscape. These concepts, along with rural design standards, can provide modest-sized as well as more spacious units without using up the remaining open space of the Town. The compact layouts of such subdivisions facilitate utility connections and services, reduce road costs, and can be tailored to the needs of specific age groups such as senior citizens. The Town can encourage these alternatives in lower-density single-family developments without introducing large-scale slabs or monolithic multi-unit structures.

In order to provide affordable housing necessary to meet the needs of all its residents, the Town must devise an affordable housing plan that actively explores cooperative and regional strategies. Such an approach would more efficiently and economically cope with the housing, service and counseling needs associated with unemployed, under-employed and otherwise disadvantaged individuals and families.

The Town must weigh alternatives and enact appropriate zoning rules to facilitate provision of affordable housing. Considerations should include mill conversions, new multi-unit complexes and, whenever possible, methods that continue to integrate secondary units with existing land use and built form patterns.

The 1997 zoning amendments incorporated provisions for in-law apartments[4]. This provision allows an accessory family dwelling unit by special use permit in any residential district, the village business district, the waterfront district or in a pre-existing residence located in the business or manufacturing district. Among other things, the unit must be occupied by a member of the family that occupies the principal residence, may contain only one bedroom, may not exceed 600 square feet of living space and must have common utilities. This provision will help to provide affordable housing for family members of Warren residents.

Affordable housing should not be isolated from market rate units. Its design should help maintain and enhance town character and it should not stigmatize lower income residents. Small-scale projects integrated into the existing built environment or new subdivisions should be emphasized. The Town must also adequately staff those who provide counseling, distribute income supplements and food, and plan for and monitor affordable housing programs. Expansion of the existing Housing and Public Welfare departments will be necessary. [See also the Services & Facilities Element.]

Outside pressures on market housing are likely to increase and have a direct impact on Warren, causing all housing costs to remain high and continue to escalate. These pressures will increase demands for assistance programs in an era marked by greatly diminished federal funding. The Town must focus on this trend and act in a more decisive manner.

The Town should aggressively seek grants and programs that can assist with lower interest mortgages, subsidies, and construction loans, and provide incentive and other programs that can materially add to Warren's affordable and lower income housing. However, the town also must monitor the service and education costs generated by new development and make sure that these costs- in terms of both expenditure and capacity - can be met without further tax burdens.

C. SENIOR HOUSING

Warren has a large senior population that is likely to make up an increasingly large percentage of the overall population due to relatively slow overall growth. Additional nursing homes will be needed over the next several years. The Town may wish to encourage new facilities providing group living such as congregate care and limited medical, social and other services. The strong base of nursing homes and elderly housing in Warren suggests the possibility of such facilities becoming a major local employer in the near future. In addition, the Town may wish to encourage construction of secondary or accessory units suited to older couples and individuals. This will require zoning provisions that acknowledge this need and allow this form of housing. Density provisions can allow for tightly clustered units with adjacent land kept open in recreation, conservation or agricultural uses.

Senior housing can also be a form of infill housing, using lands close to the Town center that are currently unused or where a more intense mixed use pattern is appropriate. Such locations allow easy pedestrian access to stores and civic or religious activities. In addition, accessory units to existing houses should be targeted to seniors.

[4] Warren Zoning Ordinance, 1997. Section XXIV.

The Town must assess its compliance with handicapped requirements and where necessary develop a plan to accommodate those with special housing needs.

D. DEVELOPMENT TRENDS

Housing development will probably continue to have an impact on the outlying agricultural areas of town. The Town should assess this tendency and establish policy that defines where housing should go and what performance standards it must conform to in order to protect Warren's rural character.

Generally, infill housing should be encouraged in sections of town serviced by water and sewer systems, and multi-unit complexes should certainly be required to hook up to these lines. Warren's wetlands and low-lying topography preclude the development of much of its land. In addition, certain areas have soils that are marginal for development. With these constraints in mind, the Town may eventually have to limit density in some unsewered areas, based upon the carrying capacity of the land and the resultant impacts to ground and surface water. The Town must also consider service and education costs in all development decisions.

E. HISTORIC HOUSING STOCK

Warren has a large stock of older houses, many of which are clearly historically significant. The Town through the adoption of the Downtown Revitalization Plan has begun to acknowledge the importance of these structures and actively sought their restoration. These buildings provide stability to the downtown area and help contribute to Town character. When properly restored, historic houses increase values and help stabilize the blocks where they are located. The proximity of housing to downtown commercial areas has led to the removal of houses and other older structures for parking lots. This practice should be discouraged. The Town should empower an Historic District Commission to review external changes proposed within an historic area. This review should be tailored to Warren, balancing between protection of individual's rights and protection of neighborhood character.

F. CODE ENFORCEMENT AND FINANCIAL INCENTIVES

Much of older Warren has a somewhat tired appearance simply because many units need external attention. Outside surfaces are need of repair and/or paint, trim and entries are in poor condition, and yards contain derelict vehicles and junk. Minimum housing codes should be enforced and additional financial incentives developed in order to encourage upkeep and repairs. This would perhaps work best as a gradual neighborhood by neighborhood process.

G. THE DOWNTOWN REVITALIZATION PLAN

In 1996 Warren became one of the first communities with the Small Cities Community Development Block Grant (CDBG) program to have a three-year plan approved for funding. The plan spanned from 1996 to 1998 and funded revitalization efforts on Water Street. Initiatives included residential and commercial rehabilitation, a small streetscape project and neighborhood tot lot and some smaller projects. In the past few year Water Street and the surrounding neighborhoods have begun a slow transformation. Through the CDBG program twenty-one residential units and 12 commercial units have been rehabilitated benefiting 27 low-moderate income persons and 4 persons that were over income. The revitalization acted as a

catalyst for change and the street began to transform.

In August of 1998 CDBG funds were used to hire a private consultant to work with the Town to develop a downtown revitalization plan. The Downtown Revitalization Steering Committee that guided this project was an inclusive group consisting of residents, business owners and town officials. The *Town of Warren Downtown Revitalization Plan* completed in April of 1999 provided the basis for Phase II of Warren's three year CGBG plan. Under this plan the Water Street Revitalization Area has been expanded to include the majority of Main Street and the entire low-mod census tract. There are 2,049 persons of low-mod income who live within the four sub-census tracts that comprise the project area. The revitalization plan includes planned improvements for physical infrastructure, housing, economic restructuring and social services. e. This plan which has been adopted by the Town as part of its comprehensive plan, provides a future vision and holistic approach to the revitalization of downtown Warren. It sites the diverse and stable residential population, the historic tradition, affordable housing, and mixed use in a traditional Main Street setting as some of the area's most important assets.

IV. POLICIES AND ACTIONS

Policy 1: Support the development of housing that is affordable to all Warren residents.

Action 1.1 Assess the stock of lower income and affordable housing units and plan for the provision of additional units well in advance of need.

Action 1.2 Promote provisions for additional housing as secondary units, duplexes and apartments in existing buildings where health, safety and environmental concerns are addressed.

Action 1.3 Revise zoning provisions to facilitate sons and daughters acquiring lots for starter housing.

Action 1.4 Determine projected needs for senior housing and provide necessary zoning and assistance (such as through application for available grants) for the conversion of existing structures and/or the construction of new senior citizen housing.

Action 1.5 Consider the formation of a non-profit housing development corporation, using the Bristol Foundation and others as examples.

Action 1.6 Target new housing to lower income needs and ensure that it is well integrated into the community in scale, massing and location.

Action 1.7 Support cooperative regional efforts to meet affordable and low-income housing needs and set policies that ensure that such owner-occupied housing is well integrated into the community in scale, massing and location.

Action 1.8 Give priority consideration to accessory units (as small units over garages,

apartments in existing buildings and as set back secondary units) when such units meet service and utility standards.

Action 1.9 Promote ownership and shared ownership of low-income and affordable units. *[Town Council, Planning Board, and Housing Director for nine above actions]*

Policy 2: Ensure that any new housing development is provided with adequate fire, water, sewage, education, and other Town services, and that service increases and extensions are affordable to the Town.

Policy 3: Bring all housing up to code, providing handicapped accessibility where needed.

Action 3.1 Link code enforcement to lower cost housing programs to ensure safe as well as affordable housing. *[Town Council, Building Inspector]*

Action 3.2 Continue to support the Warren Home Repair Program as a CDBG funded operation.

Policy 4: Encourage the creation of additional rental units in the retention and rehabilitation of older housing stock, especially units in historic districts or buildings designated as historic.

Action 4.1 Amend zoning to allow for additional units in rehabilitated historic structures. Ensure that the historic character of the building is maintained or enhanced. [*Planning Board, Town Council*]

Action 4.2 Create additional historic districts where affordable units would be facilitated. Create historic district commission [*Town Council, Planning Board*]

Policy 5: In revising zoning and subdivision regulations, incorporate innovative concepts with respect to density, flexible zoning, provision of utilities and accessory units in order to provide affordable housing and protect greenspace and promote pedestrian friendly development.

Action 5.1 Clearly evaluate all housing types permitted under zoning and subdivision regulations and allow multi-unit types after full assessment of the economic, utility and visual impacts of such structures. *[Planning Board, Town Council]*

Policy 6: Revise zoning to link uses allowed only by special use permit to clearly specified conditions.

Action 6.1 Devise conditions where special use permit development is permitted only when the developer meets explicit review standards that benefit the Town and, in exchange, may allow the developer to build additional units.

Action 6.2 Link any increase in density to higher performance standards and more stringent environmental criteria. Make any such zoning district change dependent on a full assessment of the impacts of such an action and subject to a public hearing.

[Planning Board, Town Council for two above Actions]

Policy 7: Maintain the stability of neighborhoods through land use restrictions, buffering requirements, timely road repairs, and related public works efforts.

Action 7.1 Institute a capital improvements program for all neighborhoods which covers streets, lights, utilities, neighborhood centers, parks, etc. *[Planning Board, Town Council, Warren DPW]*

Policy 8: Integrate into the landscape any new housing allowed in farm areas.

Action 8.1 Discourage standard "plat" subdivision. Encourage flexible zoning and rural development design standards in order to retain traditional land patterns; Promote design appropriate to traditional scale, massing and landscaping, through innovative zoning and design regulations. (See Natural and Cultural Resource Element as well) *[Planning Board, Town Council]*

Action 8.2 Set new performance standards for rural areas to maintain open field patterns. *[Planning Board, Town Council, Conservation Commission]*

Policy 9: Encourage owner occupancy and secondary units and define rental unit tenant rights.

Action 9.1 Investigate proven procedures in these areas and initiate local procedures appropriate to Warren. *[Housing Director, Task Force appointed for this purpose]*

Policy 10: Require dimensional and vegetative buffers between residential zones and other non-residential zones.

Action 10.1 Establish appropriate performance standards to insure visual privacy between residential and non-residential zones. *[Planning Board, Town Council]*

Policy 11: Change criteria for adjustments in zoning categories (current one drop in zone provisions) to permit targeted housing needs and to permit logical development. *[Planning Board, Town Council]*

Action 11.1 Review and revise zoning and subdivision rules to reflect Comprehensive Plan recommendations. *[Planning Board]*

Policy 12: Plan for the housing needs of the physically and mentally disabled and, if necessary, consider using incentives to ensure the provision of sufficient housing units for these segments of the population.

Action 12.1 Assess the adequacy of both the quality and quantity of existing special needs housing in Warren and determine whether or not incentives are necessary.

Action 12.2 Seek increased communication between the housing Director and the Public

Welfare Director, and estimated the number of housing units needed to serve the disabled population over the next decade and beyond.
(*Housing Director, Public Welfare Director, And Planning Board for both actions)*

V. Housing Element Implementation Schedule

	ASAP	5 yrs	20 yrs	Responsible Parties
Policy 1: Affordable housing for all	*			TC, PB, Housing Director(HD)
Action 1.1 Housing initiative	*			TC, PB, HD
Action 1.2 Provision for secondary units	*			TC, PB, HD
Action 1.3 Starter housing provision		*		TC, PB, HD
Action 1.4 Senior housing planning		*		TC,PB,HD
Action 1.5 Non-profit Housing Corp.		*		TC,PB,HD
Action 1.6 Integrate new, low income housing	*			TC,PB,HD
Action 1.7 Regional housing effort	*			TC,PB,HD
Action 1.8 Provision for accessory units	*			TC,PB,HD
Action 1.9 Home ownership provisions		*		TC,PB,HD
Policy 2: Service provision	*	*		TC, Building Inspector (BI)
Policy 3: Code enforcement	*			BI
Action 3.1 Linkage to affordable housing	*			TC,BI
Action 3.2 Support Warren Home Program with CDBG	*	*		TC,BI
Policy 4: Rental units/historic rehabilitation	*			
Action 4.1 Amend zoning as needed; ensure that historic character is maintained or enhanced	*			TC,PB, BI
Action 4.2 Create Historic District Comm.	*			PB,TC
Policy 5: Innovative zoning, etc.		*		PB,TC
Action 5.1 Multi-unit development		*		PB,TC
Policy 6: Special Use Permit	*			PB,TC
Action 6.1 Special Use Permit review	*			PB,TC
Action 6.2 Performance standards	*			PB,TC
Policy 7: Neighborhood stability	*			TC, DPW,PB
Action 7.1 Capital improvement program		*		TC,DPW,PB
Policy 8: Integrate rural housing to protect farmland	*			PB,TC

Action 8.1 Institute appropriate regulations	*			PB,TC
	ASAP	**5 yrs**	**20 yrs**	**Responsible Parties**
Action 8.2 Set performance standards	*			PB,TC
Policy 9: Encourage owner occupancy, secondary units;tenant rights		*		HD, Special Taskforce
Action 9.1 Institute appropriate rules		*		HD, Special Taskforce
Policy 10: Require buffer zones	*			PB,TC
Action 10.1 Set performance standards	*			PB,TC
Policy 11: Zoning adjustments				PB, TC
Action 11.1 Appropriate zoning revision				
Policy 12: Provide housing for the physically and mentally disabled	*	*		HD, PB Public Welfare Director(PWD)
Action 12.1 Assess adequacy	*			HD, PWD
Action 12.2 Improve Communication	*			HD, PWD

References and Bibliography

Census 90: Selected Population and Housing Characteristics for Rhode Island Counties, Cities and Towns, Rhode Island Department of Administration, Division of Planning, August, 1991.

Comprehensive Community Plan, Warren, Rhode Island, Warren Planning Board, Rhode Island Development Council, December, 1966.

13: ARCHITECTURAL FEASIBILITY STATEMENT

INCLUSIONS:

- Architectural Feasibility Study Statement

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Mario Carreño 2.15.2023
Chief Operating Officer
Rhode Island Department of Education – SBA
255 Westminster Street
Providence, RI 02903

Dear Mr. Carreño

The Bristol Warren Regional School District (BWRSD) intends to extend a Necessity of School Construction Application approval in accordance with the RIDE School Construction Regulations.

BWRSD is in an agreement to fund an Architectural Feasibility/Facility Master Plan necessary to complete the Necessity of School Construction application. The LEA acknowledges that it received the Owner's Project Manager, Educational Facility Planner, and Commissioning agent templates provided by RIDE and we have referenced these templates to procure the necessary services.

The LEA agrees to procure the services of an Independent Engineering Commissioning Agent Services for projects, pursuant to the School Construction Regulations. All building inspection will be completed by August 1st, pursuant to Rhode Island General Law 16-21-3. The LEA has updated its Asset Protection Plan on E-RIDE and authorizes RIDE to use this submission to satisfy the Asset Protection requirement.

Frank M. Caliri, Facilities Director, will be the point of contact for the application process. Frank can be reached via email at frank.caliri@bwrsd.org

The Cumberland School Department does not discriminate on the basis of age, gender, gender expression, race, religion, national origin, color, or disability in accordance with applicable laws and regulations.

14: OPERATING BUDGET ANALYSIS

INCLUSIONS:

- Operating Budget Statement
- Revised FY2022 Budget

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Budget Impact Statement

Projects that have been included in the current 5-year plan have minimal impact on the operating budget for the school district. For projects where new systems and/or infrastructure are proposed, the school district will look to the project designer(s) to specify energy efficient fixtures and systems that may even allow the district to realize some savings.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

Bristol Warren Regional School District

FY2023

General & Debt Funds Budget

School Committee ADOPTED Budget

March 1, 2022

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW.BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Superintendent's Budget Message - March 2, 2022

To the Members of the Joint Finance Committee:

The Bristol Warren Regional School District is working to finalize a draft of its strategic plan. The district has five objectives:

Objective 1 - Climate and Culture

- Cultivate a positive culture and climate for all students and staff

Objective 2 - Teaching and Learning

- Implement new researched-based high quality curriculum in ELA, Math and Science

Objective 3 - Professional Learning

- Develop high quality professional learning experiences for all staff

Objective 4 - Career and Technical Education

- Expand CTE offerings for students and support CTE program expansion

Objective 5 - Operational Excellence

- Develop and sustain the infrastructure necessary to achieve operational excellence related to facilities, technology, business, human resources, and communication

During our budget discussions, we prioritized expenses with maximum impact on student achievement in addition to the social and emotional wellbeing of our students. We looked for, and employed efficiency whenever possible, and utilized our grant funding for one time expenses to lessen the burden on our communities. We negotiated a successor contract with our certified staff and are currently bargaining with our non certified staff. The bulk of our increases are fixed costs. Working in partnership with both Bristol and Warren, we are asking for a modest overall increase of 1% which is $533,000. The increase in school appropriation for Bristol is 1.8% and Warren is 3.8%.

We are grateful for the commitment of our administrators and staff, and we know their work makes a difference in the lives of our students. We are also thankful for the support of our parents, families and community organizations whose contributions provide enrichment opportunities for our students. Finally, we appreciate the support and collaboration of our School Committee and Town partners.

With our children in mind,
Ana C. Riley
Superintendent of Schools
Bristol Warren Regional School District

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

Bristol Warren Regional School District

FY2023

General & Debt Funds Budget

School Committee ADOPTED Budget

March 1, 2022

FY2023 School Committee ADOPTED Budget

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FY2023 School Committee ADOPTED Budget

Section I

Superintendent's Power Point Presentation

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

FY23 Budget

School Committee Presentation February 14, 2022
School Committee Presentation February 28, 2022 - Updated
Joint Finance Committee Presentation March 3, 2022 - Updated

Ana C. Riley, Superintendent of Schools

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Strategic Plan

5 Objectives

- Climate & Culture
- Teaching & Learning
- Professional Learning
- Career & Technical Education
- Operational Excellence

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Objective 1: Climate & Culture

Cultivate a positive culture and climate for all students and staff.

Examine existing supports for student and staff wellness and potential for community partnerships.

Implement research based approaches to Tier 1 Social Emotional Learning in every PK-12 classroom.

Establish a shared belief that every student can achieve high standards given access to high quality curriculum and the supports to grow and persevere.

Embrace schoolwide practices that promote inclusivity , strength-based approaches, and school connectedness.

Revise the Code of Conduct to shift the focus from exclusionary discipline to restorative practices.

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Objective 2: Teaching & Learning

Implement new research based high quality curriculum in ELA, Math and Science; and support improvements in other subject areas. Program selection, and implementation will be supported by strong teacher and leader involvement.

Ensure high quality curriculum and instruction in place in all content areas so that 75% of all students or higher meet and exceed proficiency measures on state and local assessments.	**Strengthen the PK-12 system of academic and behavioral supports and interventions (RtI/MTSS).**	**Enhance students' PK-12 roadmap to college and careers through: school readiness, experiential learning, Career and Technical Education, dual/concurrent enrollment**

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Objective 3: Professional Learning

Develop High Quality Professional Learning experiences for all staff that are relevant, purposeful, systematic, and structured with a goal of improving and building upon educator's practices and student outcomes.

Appoint a district Steering Committee to develop a district Professional Learning Framework and evaluate learning outcomes.	**Establish School Based Professional Learning Teams that will align school-based PD to School Improvement Plans.**	**Promote teacher leader development and opportunities for staff to lead professional training.**

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Objective 4: Career & Technical Education

Expand CTE offerings for students and creating the infrastructure and policies to support CTE expansion.

Develop comprehensive and inclusive CTE policies and processes to expand CTE programs and pathways.

Increase the number of CTE programs offered in district.

Develop and implement a district-wide Marketing plan for CTE programs.

Increase the number of students successfully completing CTE programs by 20% each year for next 5 years.

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Objective 5: Operational Excellence

Develop and sustain the infrastructure necessary to achieve operational excellence related to facilities, technology, business, human resources, and communication.

Business Operations:
- Reorganize Business Department
- Strengthen Financial Systems
- Identify areas for economic efficiencies

Facilities:
- Develop, implement and monitor 5 Year Capital Plan for 2022-2027
- Implement protocols for routine maintenance
- Optimize staffing schedules to ensure adequate levels of custodial & maintenance service.

Stakeholder Engagement & Communication:
- Evaluate effectiveness of current engagement strategies across stakeholders
- Update district website and promote communication through social media platforms
- Develop a communication guide for use by all schools

Technology:
- Develop and implement a Five Year Technology Plan
- Evaluate the effectiveness in supporting instructional and business operations

Human Resources:
- Implement position control protocols
- Streamline hiring process & increase recruiting strategies for hard to fill positions
- Implement protocols for orientation, onboarding and offboarding

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Recommended Budget Requests

- Hire Math Coordinator K-8
- Hire additional Special Education Teachers to create more Collaborative Classrooms (1 special educator paired with 1 general education teacher all day)
- Hire additional Special Education Coordinator
- Hire 4 Achievement Coaches
- Hire an additional Pre-K teacher (working towards expansion and full day programming in both Warren and Bristol)

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Category	FY22 Budget	FY23 Proposed Budget	$ Change	% Change
Salaries	$30,292,264	$30,636,570	$344,307	1.1%
Employee Benefits	$13,584,933	$13,736,450	$151,517	1.1%
Professional Services	$1,681,444	$1,686,537	$5,092	0.3%
Property Services	$1,015,392	$861,327	($154,065)	-15.2%
Other Purchased Services	$6,650,447	$6,710,866	$60,419	0.9%
Supplies	$1,402,413	$1,418,045	$15,632	1.1%
Property	$129,403	$206,514	$77,111	59.6%
Miscellaneous	$73,478	$108,665	$35,187	47.9%
Debt Service	$1,587,250	$1,585,050	($2,200)	-0.1
Total Expenditures	**$56,417,024**	**$56,950,024**	**$533,000**	**1.0%**

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Category	FY22 Budget	FY23 Proposed Budget	$ Change	% Change
Federal Revenue	$475,000	$500,000	$25,000	5%
State Aid	$12,765,716	$12,729,035	($36,681)	(0.3%)
Housing Aid	$940,828	$939,524	($1,304)	(0.1%)
Local Revenue	$214,600	$238,500	$23,900	11.1%
Town Appropriation Bristol	*$28,251,897*	*$28,762,643*	*$510,746*	*1.8%*
Town Appropriation Warren	*$13,270,075*	*$13,780,322*	*$510,247*	*3.8%*
Total Town Appropriation	$41,521,972	$42,542,965	$1,020,993	2.5%
Budgeted use of Fund Balance	$498,908	0	($498,908)	(100%)
Total Revenue	**$56,417,024**	**$56,950,024**	**$533,000**	**1.0%**

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Thank you

BRISTOL WARREN REGIONAL SCHOOL DISTRICT

Projected Enrollment

School District: Bristol-Warren RSD, RI 12/20/2021

Enrollment Projections By Grade*

Birth Year	Births*		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2016	216		2021-22	39	198	196	207	214	220	220	219	235	237	216	254	235	245	0	2896	2935
2017	240		2022-23	45	236	192	199	205	214	218	213	219	229	229	208	254	259	0	2876	2921
2018	198		2023-24	46	195	229	195	198	206	212	211	213	214	221	221	208	280	0	2803	2849
2019	193		2024-25	47	190	189	233	194	198	204	206	211	208	207	213	221	229	0	2703	2750
2020	229	(prov.)	2025-26	48	225	184	192	232	194	196	198	206	206	201	200	213	243	0	2690	2738
2021	215	(est.)	2026-27	49	211	218	187	191	232	192	190	198	201	199	194	200	234	0	2647	2696
2022	215	(est.)	2027-28	50	211	205	222	186	191	230	186	190	193	194	192	194	220	0	2614	2664
2023	210	(est.)	2028-29	51	206	205	209	221	186	189	223	186	185	186	187	192	214	0	2589	2640
2024	212	(est.)	2029-30	52	209	200	209	208	221	184	183	223	181	179	179	187	211	0	2574	2626
2025	216	(est.)	2030-31	53	213	203	204	208	208	219	178	183	217	175	173	179	206	0	2566	2619
2026	214	(est.)	2031-32	54	210	207	207	203	208	206	212	178	178	209	169	173	197	0	2557	2611

Note: Ungraded students (UNGR) often are high school students whose anticipated years of graduation are unknown, or students with special needs - UNGR not included in Grade Combinations for 7-12, 9-12, etc.

Based on an estimate of births | Based on children already born | Based on students already enrolled

*Birth data provided by Public Health Vital Records Departments in each state.

FY2023 School Committee ADOPTED Budget

Section II

School Committee's ADOPTED Budget By Object Code

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 B[illegible]T SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]dget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
GENERAL FUND REVENUE									
41210	Local Appropriation/General Fund Town of Bristc	$26,331,830	$26,717,032	$27,447,852	$27,447,563	*$27,812,066*	*$28,359,973.00*	$547,907	2.0%
41210	Local Appropriaiton/Debt Service Town of Warre	$11,501,259	$11,713,014	$12,237,148	$12,237,437	*$13,063,484*	*$13,537,466.00*	$473,982	3.6%
41250	Budgeted Use of Fund Balance/SEL	$0	$0	$1,186,561	$0	*$498,908*	*$0*	($498,908)	0.0%
41250	Budgeted Use of Fund Balance/Other One Time	$0	$0	$0	$0	*$0*		$0	0.0%
41310	Tuition From Individuals	$54,216	$36,984	$54,004	$8,008	*$61,107*	*$50,000*	($11,107)	-18.2%
41510	Interest Income	$68,452	$52,533	$68,866	$5,739	*$45,000*	*$25,000*	($20,000)	-44.4%
41702	Bookstore/Lock Sales & Rental Revenue	$4,020	$1,050	$1,000	$0	*$1,000*	*$1,000*	$0	0.0%
41707	Other Fees District Activities/Charges Recovered	$3,393	$374	$3,393	$53,198	*$3,393*	*$5,000*	$1,607	47.4%
41750	Revenue from Enterprise Activities	$2,406	$0	$0	$0	*$0*		$0	0.0%
41901	Use of Facilities Rental	$1,850	$1,700	$4,000	$0	*$4,000*	*$5,000*	$1,000	25.0%
41920	Contributions and Donations Private Sources	$100		$0	$0	*$0*		$0	0.0%
41980	Refund of Prior Year Expenditures	$132,484	$105,106	$100,000	$235,164	*$100,000*	*$150,000*	$50,000	50.0%
41990	Miscellaneous Revenue	$21	$2,763	$100	$495	*$100*	*$2,500*	$2,400	2400.0%
43101	State Aid-Funding Formula	$14,623,085	$14,059,046	$13,099,119	$14,147,445	*$12,765,716*	*$12,729,035*	($36,681)	-0.3%
44107	Indirect Cost Revenue	$0	$0	$0	$0	*$0*		$0	0.0%
44202	Medicaid Reimbursement Revenue	$475,648	$372,934	$420,000	$289,019	*$475,000*	*$500,000*	$25,000	5.3%
	TOTAL REVENUE GENERAL FUND	**$53,198,764**	**$53,062,536**	**$54,622,043**	**$54,424,067**	**$54,829,774**	**$55,364,974**	**$535,200**	1.0%
GENERAL FUND EXPENDITURES By Category									
51xxx	**EMPLOYEE COMPENSATION-SALARIES**	$30,105,288	$29,877,884	$30,907,688	$30,925,371	$30,292,264	$30,636,570	$344,307	1.1%
52xxx	**EMPLOYEE COMPENSATION-BENEFITS**	$12,705,262	$12,626,524	$13,732,207	$13,421,721	$13,584,933	$13,736,450	$151,517	1.1%
53xxx	**PURCHASED PROFESSIONAL SERVICES**	$1,498,746	$1,320,910	$1,360,403	$1,487,887	$1,681,444	$1,686,537	$5,092	0.3%
54xxx	**PURCHASED PROPERTY SERVICES**	$653,950	$862,336	$529,488	$701,814	$1,015,392	$861,327	($154,065)	-15.2%
55xxx	**OTHER PURCHASED SERVICES**	$5,813,303	$5,172,647	$6,474,474	$6,003,222	$6,650,447	$6,710,866	$60,419	0.9%
56xxx	**SUPPLIES AND OTHER MATERIALS**	$1,426,299	$1,133,807	$1,520,280	$1,461,939	$1,402,413	$1,418,045	$15,632	1.1%
57xxx	**PROPERTY AND CAPITAL EXPENDITURES**	$428,783	$51,839	$20,847	$55,522	$129,403	$206,514	$77,111	59.6%
58xxx	**MISC. EXPENDITURES**	$145,668	$76,158	$76,657	$87,214	$73,478	$108,665	$35,187	47.9%
	TOTAL EXPENDITURES GENERAL FUND	$52,777,299	$51,122,104	$54,622,043	$54,144,689	$54,829,774	$55,364,974	$535,200	1.0%
	General Fund Surplus/<Deficit>	**$421,466**	**$1,940,432**	**$0**	**$279,378**	**($0)**	**$0**	**$0**	
DEBT SERVICE REVENUE									
					REVENUE FROM LOCAL GOVERNMENTAL UNITS				
41210	Bristol Appropriation/Transfer Debt Service	$163,823	$163,823	$407,868	$408,157	*$439,831*	*$402,670*	($37,161)	-8.4%
41210	Warren Appropriation/Transfer Debt Service	$71,555	$71,555	$182,265	$181,976	*$206,591*	*$242,856*	$36,265	17.6%
41250	Transfer/Budgeted Use of Fund Balance	$977,500	($1,976)	$54,334	$0	*$0*	*$0*	$0	0.0%
43202	State Housing Aid Reimbursement/Debt Service	$1,350,772	$1,350,772	$937,983	$937,983	*$940,828*	*$939,524*	($1,304)	-0.1%
	TOTAL DEBT SERVICE FUND REVENUE	**$2,563,650**	**$1,584,174**	**$1,582,450**	**$1,528,116**	**$1,587,250**	**$1,585,050**	**($2,200)**	-0.1%
DEBT SERVICE EXPENSES									
58311	Bond Principal Payment	$2,494,200	$1,089,510	$1,130,000	$1,130,000	*$1,180,000*	*$1,225,000*	$45,000	3.8%
58322	Bond Interest Payment	$69,450	$494,664	$452,450	$452,294	*$407,250*	*$360,050*	($47,200)	-11.6%
	TOTAL DEBT SERVICE FUND EXPENDITURES	**$2,563,650**	**$1,584,174**	**$1,582,450**	**$1,582,294**	*$1,587,250*	**$1,585,050**	**($2,200)**	-0.1%
	Debt Service Fund Surplus/<Deficit>	$0	$0	$0	($54,178)	$0	$0	$0	
TOTAL GENERAL & DEBT SERVICE FUNDS		**$55,340,949**	**$52,706,277**	**$56,204,493**	**$55,726,983**	**$56,417,024**	**$56,950,024**	**$533,000**	

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 BU[illegible]T SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]dget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
EMPLOYEE COMPENSATION-SALARIES									
51110	Regular Salaries (Base/Degree/Long)	$28,162,377	$28,162,590	$29,217,405	$29,109,181	*$28,448,636*	*$28,845,587*	$396,951	1.4%
51113	Professional Day	$473,655	$476,472	$497,077	$491,421	*$495,072*	*$465,393*	($29,679)	-6.0%
51115	Salaries - Substitutes	$448,899	$370,392	$237,520	$321,439	*$426,653*	*$375,000*	($51,653)	-12.1%
51131	Differential Pay	$13,618	$13,939	$14,208	$13,242	*$13,253*	*$13,500*	$247	1.9%
51132	Department Head	$208,486	$214,016	$214,016	$209,352	*$214,216*	*$219,131*	$4,914	2.3%
51201	Regular Overtime	$28,591	$20,315	$25,000	$114,844	*$28,590*	*$25,000*	($3,590)	-12.6%
51203	Event Coverage Overtime	$34,295	$25,580	$59,794	$55,290	*$30,294*	*$35,000*	$4,706	15.5%
51302	Professional Development - School	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
51303	Professional Development - District	$42,477	$14,355	$30,228	$17,503	*$14,025*	*$15,000*	$975	6.9%
51304	Trainer Expense	$744	$372	$1,575	$0	*$1,200*	*$0*	($1,200)	-100.0%
51306	Vacation Payoff	$32,788	$99,036	$50,000	$85,381	*$50,000*	*$60,000*	$10,000	20.0%
51308	After School Programs	$44,888	$39,652	$50,000	$37,215	*$22,569*	*$40,000*	$17,431	77.2%
51309	Tutoring	$10,460	$3,642	$3,642	$2,751	*$10,212*	*$5,000*	($5,212)	-51.0%
51311	Curriculum Work	$4,821	$3,317	$10,500	$813	*$2,976*	*$3,000*	$24	0.8%
51323	Detention Coverage	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
51327	Other Additional Compensation	$140	$0	$0	$0	*$233*	*$0*	($233)	-100.0%
51331	Sick Leave Bonus	$0	$0	$0	$0	*$4,470*	*$0*	($4,470)	-100.0%
51332	Sick Payoff - Non Severance	$91,711	$48,964	$80,000	$84,586	*$80,000*	*$85,000*	$5,000	6.3%
51335	Performance Based Compensation	$12,500	$0	$0		*$0*	*$0*	$0	0.0%
51336	Class Overage/Weighting	$23,309	$6,213	$6,213	$3,413	*$9,884*	*$15,000*	$5,116	51.8%
51338	Summer Pay	$58,120	$56,679	$49,830	$30,310	*$37,610*	*$45,000*	$7,390	19.6%
51339	Class Coverage	$61,874	$38,503	$38,503	$30,850	*$52,771*	*$40,000*	($12,771)	-24.2%
51401	Stipend - Other	$115,766	$97,025	$90,100	$93,009	*$111,600*	*$111,150*	($450)	-0.4%
51403	Stipend - Athletic/Extra Curricular Directors	$1,000	$1,000	$1,000	$0	*$1,000*	*$0*	($1,000)	-100.0%
51404	Stipend - Athletic Coach/Extra Curricular Advisors	$215,267	$169,005	$210,000	$213,632	*$217,495*	*$216,810*	($685)	-0.3%
51406	Stipend - Event Officials/Personnel	$19,505	$16,817	$21,078	$11,140	*$19,505*	*$22,000*	$2,495	12.8%
51407	Stipend - Mentors	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
	TOTAL EMPLOYEE COMP-SALARIES	**$30,105,288**	**$29,877,884**	**$30,907,688**	**$30,925,371**	**$30,292,264**	**$30,636,570**	**$344,307**	1.1%

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 F[illegible]ET SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]udget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
EMPLOYEE COMPENSATION-BENEFITS									
52102	Life Insurance Premiums	$175,562	$172,795	$184,031	$194,079	*$174,462*	*$180,000*	$5,538	3.2%
52103	Dental Insurance Premiums	$287,527	$250,209	$267,317	$265,644	*$250,266*	*$250,500*	$234	0.1%
52109	Medical Buyback Payments	$122,426	$118,915	$121,495	$114,600	*$115,400*	*$120,000*	$4,600	4.0%
52112	Uniform/Clothing Allowance	$0	$0	$0	$0	*$100*	*$0*	($100)	-100.0%
52121	Health & Medical - Self-Insured - Active	$4,441,099	$4,340,631	$4,953,223	$4,729,325	*$4,844,653*	*$4,913,853.06*	$69,200	1.4%
52122	Health & Medical - Self-Insured - Retiree	$2,019,542	$1,887,528	$2,000,422	$1,908,437	*$1,807,171*	*$1,861,386.09*	$54,215	3.0%
52123	Dental Buyback Payments	$5,121	$5,100	$5,158	$5,094	*$5,100*	*$5,100.00*	($0)	0.0%
52125	Dental Insurance Premiums-Retiree	$6,986	$3,039	$8,625	$6,464	*$2,424*	*$3,000.00*	$576	23.8%
52203	Teacher/Admin Pension - ERSRI	$3,256,364	$3,392,992	$3,592,384	$3,584,204	*$3,656,286*	*$3,669,974.78*	$13,689	0.4%
52207	Survivors' Benefits - ERSRI	$31,823	$31,202	$32,767	$32,861	*$30,740*	*$30,739.51*	$0	0.0%
52208	MERS Pension	$650,467	$635,850	$728,673	$709,588	*$776,639*	*$782,438.79*	$5,799	0.7%
52213	DC Contributions - ERSRI	$568,007	$564,622	$589,557	$588,902	*$593,457*	*$575,000*	($18,457)	-3.1%
52218	DC Contributions - MERS	$43,987	$45,598	$47,067	$46,360	*$50,771*	*$45,000*	($5,771)	-11.4%
52301	FICA	$424,812	$421,831	$375,763	$427,775	*$418,660*	*$423,418.74*	$4,759	1.1%
52302	Medicare	$416,066	$413,402	$427,734	$424,445	*$438,413*	*$443,396.03*	$4,983	1.1%
52401	403b Contributions	$6,000	$3,500	$6,000	$6,000	*$6,000*	*$6,000*	$0	0.0%
52501	Unemployment Insurance	$6,922	$25,312	$45,000	$52,772	*$40,000*	*$75,000*	$35,000	87.5%
52710	Worker's Compensation Premium	$214,706	$286,357	$304,992	$297,282	*$333,826*	*$300,443.40*	($33,383)	-10.0%
52901	Cafeteria Plan Fees	$15,909	$15,440	$18,400	$16,183	*$22,000*	*$22,000*	$0	0.0%
52903	Tuition Reimbursement - Taxable	$11,936	$9,800	$20,000	$8,107	*$15,000*	*$25,000*	$10,000	66.7%
52910	Auto Allowance	$0	$2,400	$3,600	$3,600	*$3,565*	*$4,200*	$635	17.8%
	TOTAL EMPLOYEE COMP-BENEFITS	**$12,705,262**	**$12,626,524**	**$13,732,207**	**$13,421,721**	**$13,584,933**	**$13,736,450**	**$151,517**	1.1%

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 B[illegible]T SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]dget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
PURCHASED PROFESSIONAL SERVICES									
53101	Administrative Support - Purch Serv	$0	$0	$0	$2,800	*$7,525*	*$6,790*	($735)	-9.8%
53102	Temporary Clerical Support	$750	$14,670	$0	$38,103	*$0*	*$0*	$0	0.0%
53202	Speech Therapists		$0	$0	$0	$0	*$0*	$0	0.0%
53204	Other Therapists	$83,535	$96,936	$59,851	$59,250	*$7,473*	*$0*	($7,473)	-100.0%
53205	Psychologists	$18,103	$46,881	$40,000	$52,411	*$0*	*$0*	$0	0.0%
53207	Interpreters	$1,153	$870	$2,000	$1,820	*$2,000*	*$3,350*	$1,350	67.5%
53209	Bus Assistants/Monitors	$345,413	$234,875	$358,111	$337,248	*$395,979*	*$407,858*	$11,879	3.0%
53210	Performing Arts	$2,288	$530	$4,775	$1,495	*$4,461*	*$4,950*	$489	11.0%
53211	Physical Therapists	$1,983	$3,185	$3,185	$0	*$4,000*	*$1,000*	($3,000)	-75.0%
53213	Evaluations	$4,315	$0	$0	$0	*$0*	*$0*	$0	0.0%
53216	GED-Programing	$2,652	$0	$0	$0	*$0*	*$33,990*	$33,990	0.0%
53216	Tutoring Services	$2,652	$5,118	$10,250	$18,909	*$15,000*	*$8,680*	($6,320)	-42.1%
53218	Student Assistance	$83,776	$111,057	$98,529	$52,080	*$22,400*	*$54,000*	$31,600	141.1%
53220	Other Purchased Professional Services	$6,250	$25,500	$0	$4,000	*$0*	*$390*	$390	0.0%
53221	Virtual Classrooms	$7,500	$25,500	$25,500	$22,500	*$0*	*$0*	$0	0.0%
53222	Web-based Supplemental Instr Prog	$194,070	$155,405	$156,105	$204,426	*$287,731*	*$228,325*	($59,406)	-20.6%
53223	Instructional Teachers	$46,596	$0	$0	$0	*$0*	*$0*	$0	0.0%
53224	Personal Care Attendants	$0	$38,498	$28,498	$10,805	*$10,750*	*$0*	($10,750)	-100.0%
53301	Professional Development & Training Svs	$7,924	$13,153	$11,763	$3,323	*$42,000*	*$15,000*	($27,000)	-64.3%
53303	Conference/Workshop	$24,267	$9,699	$9,699	$4,755	*$17,840*	*$36,850*	$19,010	106.6%
53401	Auditing/Actuarial Services	$42,800	$36,000	$49,000	$39,850	*$34,500*	*$34,000*	($500)	-1.4%
53402	Legal Services	$110,923	$81,541	$80,000	$184,338	*$147,511*	*$90,000*	($57,511)	-39.0%
53403	Health Service Providers - Students	$23,772	$19,530	$24,000	$22,028	*$37,030*	*$37,030*	$0	0.0%
53404	Compliance	$0	$0	$0	$190	*$0*	*$0*	$0	0.0%
53406	Other Professional Services	$36,142	$29,450	$29,102	$34,689	*$72,805*	*$97,609*	$24,804	34.1%
53409	Negotiations/Arbitration	$0	$0	$2,000	$11,314	*$35,000*	*$10,000*	($25,000)	-71.4%
53410	Police & Fire Details	$15,435	$3,810	$3,978	$2,538	*$3,848*	*$17,970*	$14,123	367.1%
53411	Physicians	$15,600	$15,900	$17,000	$13,800	*$16,523*	*$17,500*	$977	5.9%
53412	Dentists	$3,800	$0	$3,800	$0	*$3,800*	*$3,800*	$0	0.0%
53414	Medicaid Claims Provider	$19,177	$14,776	$23,000	$11,698	*$21,000*	*$18,000*	($3,000)	-14.3%
53416	Officials/Referees	$35,565	$0	$15,000	$24,276	*$36,145*	*$58,182*	$22,037	61.0%
53417	Contracted Nursing Serv	$99,384	$71,457	$57,000	$16,226	*$85,000*	*$126,860*	$41,860	49.2%
53501	Data Processing Services	$109,777	$275	$0	$0	*$79,620*	*$0*	($79,620)	-100.0%
53502	Other Technical Services	$141,703	$228,358	$212,207	$281,519	*$279,895*	*$360,243*	$80,348	28.7%
53503	Testing	$396	$24,387	$25,000	$26,489	*$50*	*$0*	($50)	-100.0%
53703	Accreditation	$2,312	$0	$0	$0	*$0*	*$0*	$0	0.0%
53705	Postage & Shipping	$3,752	$13,550	$11,050	$5,010	*$11,000*	*$9,900*	($1,100)	-10.0%
53706	Catering	$4,982	$0	$0	$0	*$560*	*$4,260*	$3,700	660.7%
	TOTAL PURCH. PROFESSIONAL SERVICES	**$1,498,746**	**$1,320,910**	**$1,360,403**	**$1,487,887**	**$1,681,444**	**$1,686,537**	**$5,092**	0.3%

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 B[illegible]T SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]udget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
PURCHASED PROPERTY SERVICES									
54201	Rubbish Disposal Services	$28,216	$29,760	$31,260	$31,004	*$42,072*	*$37,044*	($5,028)	-12.0%
54202	Snow Plowing & Removal Services	$11,720	$8,696	$12,000	$0	*$12,000*	*$2,400*	($9,600)	-80.0%
54204	Groundskeeping Services	$68,548	$84,502	$30,000	$59,794	*$70,000*	*$80,410*	$10,410	14.9%
54205	Rodent & Pest Control Services	$4,375	$2,110	$3,310	$3,785	*$3,300*	*$3,000*	($300)	-9.1%
54206	Cleaning Services	$523	$2,578	$2,578	$1,510	*$1,500*	*$5,220*	$3,720	248.0%
54310	Non-Tech Related Maint & Repair	$40,742	$28,805	$59,100	$16,302	*$40,000*	*$57,301*	$17,301	43.3%
54311	Maintain & Repair - Fixtures & Equipment	$9,517	$9,054	$25,554	$33,618	*$20,786*	*$66,415*	$45,629	219.5%
54312	Maintain & Repair - General	$101,754	$82,612	$59,500	$37,671	*$84,780*	*$101,000*	$16,220	19.1%
54313	Maintain & Repair - Non- Student Vehicles	$2,197	$4,536	$3,036	$2,561	*$6,466*	*$0*	($6,466)	-100.0%
54314	Maintain & Repair - Student Trans Vehicles	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
54320	Maintain & Repair - Tech-Related Hardware	$5,593	-$3,613	$2,241	($5,413)	*$7,330*	*$29,530*	$22,200	302.9%
54322	Maintenance & Repair-HVAC	$0	$19,175	$13,165	$25,207	*$20,000*	*$30,000*	$10,000	50.0%
54402	Water	$68,478	$69,500	$79,180	$76,940	*$80,000*	*$73,420*	($6,580)	-8.2%
54403	Telephone	$98,456	$96,973	$90,000	$89,279	*$96,000*	*$96,000*	$0	0.0%
54404	Energy Management Services		$0	$0	$0	$0	*$29,362*	$29,362	0.0%
54406	Wireless Communications	$29,764	$26,433	$12,000	$21,021	*$18,000*	*$16,800*	($1,200)	-6.7%
54407	Internet Connectivity	$0	$6,080	$10,000	$7,601	*$29,242*	*$14,630*	($14,612)	-50.0%
54601	Rental of Land & Buildings	$16,640	$10,894	$20,000	$11,035	*$10,500*	*$63,000*	$52,500	500.0%
54602	Rental of Equipment & Vehicles	$105,183	$116,053	$1,975	$65,056	*$101,470*	*$88,999*	($12,471)	-12.3%
54603	Rental/Lease Computer & Related Equip	$0	$205,737	$0	$156,608	*$293,501*	*$0*	($293,501)	-100.0%
54604	Graduation Rentals	$12,907	$3,850	$12,000	$13,519	*$12,922*	*$13,800*	$878	6.8%
54605	Ice Rink Rentals	$7,840	$0	$0	$0	*$3,134*	*$3,500*	$367	11.7%
54901	Other Purchased Property Services	$3,975	$2,400	$2,400	$0	*$2,400*	*$8,000*	$5,600	233.3%
54902	Alarm & Fire Safety Services	$37,510	$56,160	$60,150	$54,717	*$59,950*	*$41,226*	($18,724)	-31.2%
54903	Moving & Rigging	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
54904	Vehicle Registration - Non-student Vehicles	$11	$39	$39	$0	*$39*	*$270*	$231	592.3%
	TOTAL PURCHASED PROPERTY SERVICES	**$653,950**	**$862,336**	**$529,488**	**$701,814**	***$1,015,392***	**$861,327**	**($154,065)**	-15.2%

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 B' ... SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu... dget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
OTHER PURCHASED SERVICES									
55110	Student Trans District, Indv, & Public Carrier	$572	$0	$300	$0	*$300*	*$300*	($0)	-0.1%
55111	Transportation Contractors	$2,896,078	$2,142,415	$3,240,736	$2,911,654	*$3,402,665*	*$3,565,168*	$162,503	4.8%
55121	Vehicle Registration (Student Trans Vehicle)	$78	$0	$300	$0	*$300*	*$0*	($300)	-100.0%
55201	Property/Liability Insurance	$283,896	$331,594	$331,594	$368,818	*$370,830*	*$404,205*	$33,375	9.0%
55205	Flood Insurance	$57,244	$71,436	$89,232	$89,232	*$111,546*	*$121,585*	$10,039	9.0%
55206	Fleet/Vehicle Insurance	$6,450	$556	$556	$0	*$0*	*$0*	$0	0.0%
55401	Advertising Costs	$3,306	$1,885	$1,043	$3,231	*$2,000*	*$2,000*	$0	0.0%
55501	Printing	$11,874	$4,308	$4,308	$6,625	*$9,446*	*$7,949*	($1,497)	-15.8%
55610	Tuition to Other School Districts InState	$284,393	$345,443	$317,647	$406,992	*$567,720*	*$512,014*	($55,706)	-9.8%
55630	Tuition to Private Sources	$1,268,315	$1,189,483	$1,371,000	$1,415,700	*$1,376,280*	*$1,098,896*	($277,384)	-20.2%
55640	Tuition to Educational Service Agencies InState	$347,960	$446,231	$457,000	$95,923	*$103,000*	*$160,000*	$57,000	55.3%
55650	Tuition to Educational Service Agencies Out State	$523,723	$535,874	$530,000	$630,567	*$609,000*	*$747,831*	$138,831	22.8%
55660	Tuition to Charter Schools	$88,097	$85,379	$93,000	$64,413	*$69,586*	*$59,065*	($10,521)	-15.1%
55690	Tuition Other	$9,054	$4,668	$0	$0	*$0*	*$0*	$0	0.0%
55705	Food Service Inspection Services	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
55801	Board Travel	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
55802	Travel - PD - School Committee	$0	$0	$0	$0	*$0*	*$1,000*	$1,000	0.0%
55803	Employee Travel - Non-Teachers	$14,993	$6,299	$15,000	$3,956	*$10,500*	*$13,322*	$2,822	26.9%
55807	Student Travel	$2,490	$0	$5,500	$0	*$0*	*$0*	$0	0.0%
55808	Parent Travel	$3,997	$5,258	$5,258	$2,650	*$5,500*	*$5,750*	$250	4.5%
55809	Employee Travel - Teachers	$9,786	$1,817	$12,000	$3,462	*$9,500*	*$8,531*	($969)	-10.2%
55810	Travel - Other	$998	$0	$0	$0	*$2,275*	*$3,250*	$975	42.9%
	TOTAL PURCHASED SERVICES	**$5,813,303**	**$5,172,647**	**$6,474,474**	**$6,003,222**	**$6,650,447**	**$6,710,866**	**$60,419**	0.9%

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 B[illegible] SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]dget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
SUPPLIES AND OTHER MATERIALS									
56101	General Supplies & Materials	$298,743	$136,592	$217,229	$245,239	*$287,241*	*$210,640*	($76,601)	-26.7%
56112	Uniform/Wearing Apparel	$34,030	$0	$4,000	$3,515	*$3,458*	*$50,727*	$47,270	1367.2%
56113	Graduation Supplies	$2,946	$21,410	$12,000	$3,049	*$2,444*	*$3,000*	$556	22.8%
56115	Medical Supplies	$9,808	$15,260	$21,719	$13,479	*$10,500*	*$16,400*	$5,900	56.2%
56116	Athletic Uniforms/Supplies	$9,843	$8,784	$19,744	$28,493	*$39,720*	*$27,667*	($12,053)	-30.3%
56117	Honors/Awards Supplies	$9,101	$1,401	$6,161	$2,912	*$1,425*	*$4,435*	$3,010	211.2%
56201	Natural Gas	$313,073	$294,724	$351,600	$338,164	*$325,418*	*$326,175*	$757	0.2%
56202	Gasoline	$5,330	$3,483	$7,000	$4,719	*$7,000*	*$7,500*	$500	7.1%
56203	Diesel Fuel	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
56204	Propane Gas	$0	$71	$5,071	$392	*$1,000*	*$0*	($1,000)	-100.0%
56207	Maintenance Supplies/Parts	$2,093	$266	$3,000	$0	*$3,000*	*$11,000*	$8,000	266.7%
56208	Bottled Gas	$97	$0	$0	$0	*$0*	*$2,000*	$2,000	0.0%
56209	Fuel Oil	$17,317	$13,838	$20,032	$12,265	*$10,000*	*$0*	($10,000)	-100.0%
56211	Maintenance-Other Supplies	$60,019	$17,742	$52,000	$28,054	*$31,500*	*$39,100*	$7,600	24.1%
56213	Maintenance-Glass	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
56214	Maintenance-Paint	$0	$15,922	$21,900	$2,543	*$11,495*	*$16,000*	$4,505	39.2%
56215	Electricity	$477,778	$406,087	$517,568	$480,022	*$435,000*	*$463,000*	$28,000	6.4%
56216	Maintenance-Lumber and Hardware	$0	$1,012	$1,012	$729	*$1,000*	*$2,500*	$1,500	150.0%
56217	Maintenance-Plumbing and Heating	$0	$3,733	$9,141	$7,340	*$10,000*	*$12,700*	$2,700	27.0%
56218	Maintenance-Electrical	$0	$5,419	$10,000	$3,351	*$10,000*	*$10,700*	$700	7.0%
56219	Custodial Supplies	$84,233	$97,802	$115,000	$160,332	*$75,000*	*$97,500*	$22,500	30.0%
56220	Materials for Snow & Ice Removal	$1,098	$0	$4,000	$1,764	*$4,000*	*$3,600*	($400)	-10.0%
56401	Textbooks	$19,277	$43,714	$43,714	$17,581	*$12,962*	*$27,985*	$15,023	115.9%
56402	Library Books	$24,430	$2,931	$5,500	$5,278	*$19,731*	*$11,792*	($7,938)	-40.2%
56403	Reference Books	$2,583	$60	$3,060	$3,079	*$3,925*	*$500*	($3,425)	-87.3%
56404	Subscriptions & Periodicals	$8,457	$3,287	$10,500	$5,599	*$5,565*	*$4,583*	($982)	-17.7%
56406	Textbooks - Non-Public	$5,766	$5,802	$5,802	$5,552	*$1,568*	*$0*	($1,568)	-100.0%
56407	Web-based Software or Databases-Library	$17,015	$16,988	$18,038	$16,772	*$19,343*	*$15,992*	($3,351)	-17.3%
56410	Dual Enrollment Textbooks	$1,357	$464	$0	$111	*$120*	*$8,400*	$8,280	6900.0%
56501	Technology-Related Supplies	$21,904	$17,014	$35,490	$71,605	*$70,000*	*$44,150*	($25,850)	-36.9%
	TOTAL SUPPLIES AND OTHER MATERIALS	**$1,426,299**	**$1,133,807**	**$1,520,280**	**$1,461,939**	**$1,402,413**	**$1,418,045**	**$15,632**	1.1%

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 B[illegible]T SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]dget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
PROPERTY AND CAPITAL EXPENDITURES									
57301	Vehicles	$0	$0	$0	$0	*$0*	*$0*	$0	0.0%
57305	Equipment	$37,620	$8,884	$3,435	$32,105	*$18,570*	*$87,938*	$69,368	373.6%
57306	Furniture & Fixtures	$4,106	$451	$1,451	$1,274	*$0*	*$42,200*	$42,200	0.0%
57309	Technology-Related Hardware	$385,368	$35,460	$0	$21,732	*$96,900*	*$59,550*	($37,350)	-38.5%
57311	Technology Software	$1,689	$7,044	$15,961	$411	*$13,933*	*$16,825*	$2,892	20.8%
	TOTAL PROPERTY AND CAPITAL EXP	**$428,783**	**$51,839**	**$20,847**	**$55,522**	**$129,403**	**$206,514**	**$77,111**	59.6%
						$0	*$0*	*$0*	
MISC. EXPENDITURES									
58101	Professional Organization Fees	$28,055	$20,523	$28,125	$36,402	*$26,784*	*$39,748*	$12,964	48.4%
58102	Other Dues & Fees	$43,298	$41,215	$30,882	$16,823	*$30,544*	*$43,837*	$13,293	43.5%
58103	Bank Fees	$15,684	$13,670	$16,500	$14,095	*$15,000*	*$15,000*	$0	0.0%
58104	Licenses & Permit Fees	$0	$0	$0	$0	$0	*$80*	$80	0.0%
58206	Claims and Settlements	$58,400	$750	$750	$8,000	*$750*	*$10,000*	$9,250	1233.3%
58901	Other Misc Expenses	$230	$0	$400	$12	*$400*	*$0*	($400)	-100.0%
58902	Bad Debt	$0	$0	$0	$11,882	*$0*	*$0*	$0	0.0%
	TOTAL MISC. EXPENDITURES	**$145,668**	**$76,158**	**$76,657**	**$87,214**	**$73,478**	**$108,665**	**$35,187**	47.9%
	TOTAL GENERAL FUND EXPENDITURES	**$52,777,299**	**$51,122,104**	**$54,622,043**	**$54,144,689**	**$54,829,774**	**$55,364,974**	**$535,200**	1.0%
	General Fund Surplus/<Deficit>	**$421,466**	**$1,940,432**	**$0**	**$279,378**	**($0)**	**($0)**	**$0**	

FY2023 School Committee ADOPTED Budget

Section III

Admin Budget Managers' Summary Requests

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Admin Biudget MAnagers/Object Code

Object	Account Description	Superintendet	Ast. Super.	Student Supp.	Technology	Facilities	Bus. Off.	HR	Total Fy23
GENERAL FUND									
PURCHASED PROFESSIONAL SERVICES									
53101	Administrative Support - Purch Serv	$0	$0	$2,790	$0	$0	$4,000	$0	$6,790
53102	Temporary Clerical Support	$0	$0	$0	$0	$0	$0	$0	$0
53202	Speech Therapists	$0	$0	$0	$0	$0	$0	$0	$0
53204	Other Therapists	$0	$0	$0	$0	$0	$0	$0	$0
53205	Psychologists	$0	$0	$0	$0	$0	$0	$0	$0
53207	Interpreters	$350	$0	$3,000	$0	$0	$0	$0	$3,350
53209	Bus Assistants/Monitors	$0	$0	$0	$0	$0	$407,858	$0	$407,858
53210	Performing Arts	$0	$0	$0	$0	$0	$0	$0	$0
53211	Physical Therapists	$0	$0	$1,000	$0	$0	$0	$0	$1,000
53213	Evaluations	$0	$0	$0	$0	$0	$0	$0	$0
53215	GED-Programing	$0	$0	$33,990	$0	$0	$0	$0	$33,990
53216	Tutoring Services	$0	$0	$8,680	$0	$0	$0	$0	$8,680
53218	Student Assistance	$0	$0	$0	$0	$0	$0	$0	$0
53220	Other Purchased Professional Ed Serv	$0	$0	$0	$0	$0	$0	$0	$0
53221	Virtual Classrooms	$0	$0	$0	$0	$0	$0	$0	$0
53222	Web-based Supplemental Instr Prog	$0	$228,325	$0	$0	$0	$0	$0	$228,325
53223	Instructional Teachers	$0	$0	$0	$0	$0	$0	$0	$0
53224	Personal Care Attendants	$0	$0	$0	$0	$0	$0	$0	$0
53301	Professional Development & Training Service	$0	$0	$3,000	$0	$0	$3,000	$2,700	$8,700
53303	Conference/Workshop	$14,400	$6,500	$2,500	$0	$1,400	$1,500	$0	$26,300
53401	Auditing/Actuarial Services	$0	$0	$0	$0	$0	$34,000	$0	$34,000
53402	Legal Services	$90,000	$0	$0	$0	$0	$0	$0	$90,000
53403	Health Service Providers - Students	$0	$0	$0	$0	$0	$0	$0	$0
53404	Compliance	$0	$0	$0	$0	$0	$0	$0	$0
53406	Other Professional Services	$5,500	$0	$23,000	$50,000	$0	$1,500	$0	$80,000
53409	Negotiations/Arbitration	$10,000	$0	$0	$0	$0	$0	$0	$10,000
53410	Police & Fire Details	$0	$0	$0	$0	$0	$0	$0	$0
53411	Physicians	$0	$0	$16,000	$0	$0	$0	$0	$16,000
53412	Dentists	$0	$0	$3,800	$0	$0	$0	$0	$3,800
53414	Medicaid Claims Provider	$0	$0	$18,000	$0	$0	$0	$0	$18,000
53416	Officials/Referees	$0	$0	$0	$0	$0	$0	$0	$0
53417	Contracted Nursing Serv	$0	$0	$126,860	$0	$0	$0	$0	$126,860
53501	Data Processing Services	$0	$0	$0	$0	$0	$0	$0	$0
53502	Other Technical Services	$0	$1,500	$0	$325,213	$25,800	$0	$5,130	$357,643
53503	Testing	$0	$0	$0	$0	$0	$0	$0	$0
53703	Accreditation	$0	$0	$0	$0	$0	$0	$0	$0
53705	Postage & Shipping	$2,000	$0	$0	$0	$0	$3,500	$0	$5,500
53706	Catering	$1,500	$1,700	$0	$0	$0	$0	$0	$3,200
	TOTAL PURCH. PROFESSIONAL SERVICES	**$123,750**	**$238,025**	**$242,620**	**$375,213**	**$27,200**	**$455,358**	**$7,830**	**$1,469,996**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Admin Biudget MAnagers/Object Code

Object	Account Description	Superintendet	Ast. Super.	Student Supp.	Technology	Facilities	Bus. Off.	HR	Total Fy23
GENERAL FUND									
PURCHASED PROPERTY SERVICES									
54201	Rubbish Disposal Services	$0	$0	$0	$0	$37,044	$0	$0	$37,044
54202	Snow Plowing & Removal Services	$0	$0	$0	$0	$2,400	$0	$0	$2,400
54204	Groundskeeping Services	$0	$0	$0	$0	$80,410	$0	$0	$80,410
54205	Rodent & Pest Control Services	$0	$0	$0	$0	$3,000	$0	$0	$3,000
54206	Cleaning Services	$0	$0	$0	$0	$0	$0	$0	$0
54310	Non-Tech Related Maint & Repair	$1,000	$0	$0	$42,801	$1,500	$0	$0	$45,301
54311	Maintain & Repair - Fixtures & Equipment	$0	$0	$0	$0	$12,180	$0	$0	$12,180
54312	Building Repair & Maintenance - Oliver	$0	$0	$0	$0	$101,000	$0	$0	$101,000
54313	Maintain & Repair - Non- Student Vehicles	$0	$0	$0	$0	$0	$0	$0	$0
54314	Maintain & Repair - Student Trans Vehicles	$0	$0	$0	$0	$0	$0	$0	$0
54320	Maintain & Repair - Tech-Related Hardware	$0	$0	$0	$29,530	$0	$0	$0	$29,530
54322	Maintenance & Repair-HVAC	$0	$0	$0	$0	$30,000	$0	$0	$30,000
54402	Water	$0	$0	$0	$0	$73,420	$0	$0	$73,420
54403	Telephone	$0	$0	$0	$96,000	$0	$0	$0	$96,000
54404	Energy Management Services	$0	$0	$0	$0	$29,362	$0	$0	$29,362
54406	Wireless Communications	$0	$0	$0	$16,800	$0	$0	$0	$16,800
54407	Internet Connectivity	$0	$0	$0	$14,630	$0	$0	$0	$14,630
54601	Rental of Land & Buildings	$0	$0	$0	$0	$36,000	$0	$0	$36,000
54602	Rental of Equipment & Vehicles	$0	$0	$0	$85,999	$0	$3,000	$0	$88,999
54603	Rental/Lease Computer & Related Equip	$0	$0	$0	$0	$0	$0	$0	$0
54604	Graduation Rentals	$0	$0	$0	$0	$0	$0	$0	$0
54605	Ice Rink Rental	$0	$0	$0	$0	$0	$0	$0	$0
54901	Other Purchased Property Services	$0	$0	$0	$0	$8,000	$0	$0	$8,000
54902	Alarm & Fire Safety Services	$0	$0	$0	$0	$41,226	$0	$0	$41,226
54903	Moving & Rigging	$0	$0	$0	$0	$0	$0	$0	$0
54904	Vehicle Registration - Non-student Vehicles	$0	$0	$0	$0	$270	$0	$0	$270
	TOTAL PURCHASED PROPERTY SERVICES	**$1,000**	**$0**	**$0**	**$285,760**	**$455,812**	**$3,000**	**$0**	**$745,572**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Admin Biudget MAnagers/Object Code

Object	Account Description	Superintendet	Ast. Super.	Student Supp.	Technology	Facilities	Bus. Off.	HR	Total Fy23
GENERAL FUND									
OTHER PURCHASED SERVICES									
55110	Student Trans District, Indv, & Public Carrier	$0	$0	$0	$0	$0	$0	$0	$0
55111	Transportation Contractors	$0	$0	$1,410,369	$0	$0	$1,997,609	$0	$3,407,978
55121	Vehicle Registration (Student Trans Vehicle)	$0	$0	$0	$0	$0	$0	$0	$0
55201	Property/Liability Insurance	$0	$0	$0	$0	$0	$404,205	$0	$404,205
55205	Flood Insurance	$0	$0	$0	$0	$0	$121,585	$0	$121,585
55206	Fleet/Vehicle Insurance	$0	$0	$0	$0	$0	$0	$0	$0
55401	Advertising Costs	$0	$0	$0	$0	$0	$2,000	$0	$2,000
55501	Printing	$474	$0	$0	$0	$3,600	$0	$0	$4,074
55610	Tuition to Other School Districts InState	$0	$0	$512,014	$0	$0	$0	$0	$512,014
55630	Tuition to Private Sources	$0	$0	$1,098,896	$0	$0	$0	$0	$1,098,896
55640	Tuition to Educational Service Agencies InSta	$0	$0	$160,000	$0	$0	$0	$0	$160,000
55650	Tuition to Educational Service Agencies Out S	$0	$0	$747,831	$0	$0	$0	$0	$747,831
55660	Tuition to Charter Schools	$0	$0	$59,065	$0	$0	$0	$0	$59,065
55690	Dual Enrollment -Tuition	$0	$0	$0	$0	$0	$0	$0	$0
55705	Food Service Inspection Services	$0	$0	$0	$0	$0	$0	$0	$0
55801	Board Travel	$0	$0	$0	$0	$0	$0	$0	$0
55802	Travel - PD - School Committee	$1,000	$0	$0	$0	$0	$0	$0	$1,000
55803	Employee Travel - Non-Teachers	$6,040	$1,662	$500	$3,500	$1,120	$500	$0	$13,322
55807	Student Travel	$0	$0	$0	$0	$0	$0	$0	$0
55808	Parent Travel	$0	$0	$0	$0	$0	$0	$0	$0
55809	Employee Travel - Teachers	$0	$281	$0	$0	$0	$4,500	$0	$4,781
55810	Travel - Other	$0	$2,500	$750	$0	$0	$0	$0	$3,250
	TOTAL PURCHASED SERVICES	**$7,514**	**$4,443**	**$3,989,425**	**$3,500**	**$4,720**	**$2,530,399**	**$0**	**$6,540,001**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Admin Biudget MAnagers/Object Code

Object	Account Description	Superintendet	Ast. Super.	Student Supp.	Technology	Facilities	Bus. Off.	HR	Total Fy23
GENERAL FUND									
SUPPLIES AND OTHER MATERIALS									
56101	General Supplies & Materials	$1,100	$5,200	$500	$400	$500	$15,000	$1,000	$23,700
56112	Uniform/Wearing Apparel	$0	$0	$0	$0	$1,600	$0	$0	$1,600
56113	Graduation Supplies	$0	$0	$0	$0	$0	$0	$0	$0
56115	Medical Supplies	$0	$0	$0	$0	$0	$0	$0	$0
56116	Athletic Uniforms/Supplies	$0	$0	$0	$0	$0	$0	$0	$0
56117	Honors/Awards Supplies	$935	$0	$0	$0	$0	$0	$0	$935
56201	Natural Gas	$0	$0	$0	$0	$326,175	$0	$0	$326,175
56202	Gasoline	$0	$0	$0	$0	$7,500	$0	$0	$7,500
56203	Diesel Fuel	$0	$0	$0	$0	$0	$0	$0	$0
56204	Propane Gas	$0	$0	$0	$0	$0	$0	$0	$0
56207	Maintenance Supplies/Parts	$0	$0	$0	$0	$11,000	$0	$0	$11,000
56208	Bottled Gas	$0	$0	$0	$0	$2,000	$0	$0	$2,000
56209	Fuel Oil	$0	$0	$0	$0	$0	$0	$0	$0
56211	Maintenance-Other Supplies	$0	$0	$0	$0	$39,100	$0	$0	$39,100
56213	Maintenance-Glass	$0	$0	$0	$0	$0	$0	$0	$0
56214	Maintenance-Paint	$0	$0	$0	$0	$16,000	$0	$0	$16,000
56215	Electricity	$0	$0	$0	$0	$463,000	$0	$0	$463,000
56216	Maintenance-Lumber and Hardware	$0	$0	$0	$0	$2,500	$0	$0	$2,500
56217	Maintenance-Plumbing and Heating	$0	$0	$0	$0	$12,700	$0	$0	$12,700
56218	Maintenance-Electrical	$0	$0	$0	$0	$10,700	$0	$0	$10,700
56219	Custodial Supplies	$0	$0	$0	$0	$97,500	$0	$0	$97,500
56220	Materials for Snow & Ice Removal	$0	$0	$0	$0	$3,600	$0	$0	$3,600
56401	Textbooks	$0	$0	$0	$0	$0	$0	$0	$0
56402	Library Books	$0	$0	$0	$0	$0	$0	$0	$0
56403	Reference Books	$500	$0	$0	$0	$0	$0	$0	$500
56404	Subscriptions & Periodicals	$283	$0	$0	$0	$0	$0	$0	$283
56406	Textbooks - Non-Public	$0	$0	$0	$0	$0	$0	$0	$0
56407	Web-bases Software or Databases-Library	$0	$15,992	$0	$0	$0	$0	$0	$15,992
56410	Dual Enrollment	$0	$0	$0	$0	$0	$0	$0	$0
56501	Technology-Related Supplies	$0	$0	$0	$44,150	$0	$0	$0	$44,150
	TOTAL SUPPLIES AND OTHER MATERIALS	**$2,818**	**$21,192**	**$500**	**$44,550**	**$993,875**	**$15,000**	**$1,000**	**$1,078,935**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Admin Biudget MAnagers/Object Code

Object	Account Description	Superintendet	Ast. Super.	Student Supp.	Technology	Facilities	Bus. Off.	HR	Total Fy23
GENERAL FUND									
PROPERTY AND CAPITAL EXPENDITURES									
57301	Vehicles	$0	$0	$0	$0	$0	$0	$0	$0
57305	Equipment	$0	$0	$0	$17,000	$9,300	$0	$350	$26,650
57306	Furniture & Fixtures	$700	$0	$0	$0	$41,500	$0	$0	$42,200
57309	Technology-Related Hardware	$0	$0	$250	$59,300	$0	$0	$0	$59,550
57311	Technology Software	$0	$0	$0	$16,825	$0	$0	$0	$16,825
	TOTAL PROPERTY AND CAPITAL EXP	**$700**	**$0**	**$250**	**$93,125**	**$50,800**	**$0**	**$350**	**$145,225**
MISC. EXPENDITURES									$0
58101	Professional Organization Fees	$16,883	$2,020	$2,000	$500	$1,730	$1,500	$469	$25,102
58102	Other Dues & Fees	$0	$0	$0	$0	$0	$1,000	$0	$1,000
58103	Bank Fees	$0	$0	$0	$0	$0	$15,000	$0	$15,000
58104	Licenses & Permit Fees	$80	$0	$0	$0	$0	$0	$0	$80
58206	Claims and Settlements	$0	$0	$0	$0	$0	$10,000	$0	$10,000
58901	Other Misc Expenses	$0	$0	$0	$0	$0	$0	$0	$0
58902	Bad Debt	$0	$0	$0	$0	$0	$0	$0	$0
	TOTAL MISC. EXPENDITURES	**$16,963**	**$2,020**	**$2,000**	**$500**	**$1,730**	**$27,500**	**$469**	**$51,182**
	TOTAL GENERAL FUND EXPENDITURES	**$152,745**	**$265,679**	**$4,234,795**	**$802,648**	**$1,534,137**	**$3,031,257**	**$9,649**	**$10,030,910**

FY2023 School Committee ADOPTED Budget

Section IV

Total Admin & Principal Summary Requests

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Budget Manager/Object Code

Object	Account Description	Admin 00000	Guiteras 03104	Colt Andrews 03105	Rockwell 03106	Hugh Cole 03113	KMS 04112	Mt Hope 05107	Total Fy23	Total Fy22	Variance
GENERAL FUND											
PURCHASED PROFESSIONAL SERVICES											
53101	Administrative Support - Purch Serv	$6,790	$0	$0	$0	$0	$0	$0	$6,790	$0	$6,790
53202	Speech Therapists	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
53204	Other Therapists	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
53205	Psychologists	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
53207	Interpreters	$3,350	$0	$0	$0	$0	$0	$0	$3,350	$2,000	$1,350
53209	Bus Assistants/Monitors	$407,858	$0	$0	$0	$0	$0	$0	$407,858	$388,521	$19,337
53210	Performing Arts	$0	$550	$0	$400	$0	$0	$4,000	$4,950	$5,000	($50)
53211	Physical Therapists	$1,000	$0	$0	$0	$0	$0	$0	$1,000	$4,000	($3,000)
53213	Evaluations	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
53215	GED-Programing	$33,990	$0	$0	$0	$0	$0	$0	$33,990	$0	$33,990
53216	Tutoring Services	$8,680	$0	$0	$0	$0	$0	$0	$8,680	$0	$8,680
53218	Student Assistance	$0	$0	$0	$0	$0	$30,000	$24,000	$54,000	$80,000	($26,000)
53220	Other Purchased Professional Ed Serv	$0	$290	$0	$0	$0	$0	$100	$390		$390
53221	Virtual Classrooms	$0	$0	$0	$0	$0	$0	$0	$0	$25,500	($25,500)
53222	Web-based Supplemental Instr Prog	$228,325	$0	$0	$0	$0	$0	$0	$228,325	$177,000	$51,325
53224	Personal Care Attendants	$0	$0	$0	$0	$0	$0	$0	$0	$28,000	($28,000)
53301	Professional Development & Training Services	$8,700	$700	$700	$700	$1,000	$3,200	$0	$15,000	$12,000	$3,000
53303	Conference/Workshop	$26,300	$500	$750	$1,750	$1,250	$0	$6,300	$36,850	$9,700	$27,150
53401	Auditing/Actuarial Services	$34,000	$0	$0	$0	$0	$0	$0	$34,000	$49,000	($15,000)
53402	Legal Services	$90,000	$0	$0	$0	$0	$0	$0	$90,000	$125,000	($35,000)
53403	Health Service Providers - Students	$0	$0	$0	$0	$0	$0	$37,030	$37,030	$24,000	$13,030
53406	Other Professional Services	$80,000	$0	$0	$0	$0	$4,800	$12,809	$97,609	$29,000	$68,609
53409	Negotiations/Arbitration	$10,000	$0	$0	$0	$0	$0	$0	$10,000	$50,000	($40,000)
53410	Police & Fire Details	$0	$0	$0	$0	$0	$0	$17,970	$17,970	$4,000	$13,970
53411	Physicians	$16,000	$0	$0	$0	$0	$0	$1,500	$17,500	$17,000	$500
53412	Dentists	$3,800	$0	$0	$0	$0	$0	$0	$3,800	$3,800	$0
53414	Medicaid Claims Provider	$18,000	$0	$0	$0	$0	$0	$0	$18,000	$21,000	($3,000)
53416	Officials/Referees	$0	$0	$0	$0	$0	$2,090	$56,092	$58,182	$33,130	$25,052
53417	Contracted Nursing Serv	$126,860	$0	$0	$0	$0	$0	$0	$126,860	$71,500	$55,360
53501	Data Processing Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
53502	Other Technical Services	$357,643	$0	$0	$0	$0	$0	$2,600	$360,243	$360,115	$128
53503	Testing	$0	$0	$0	$0	$0	$0	$0	$0	$25,000	($25,000)
53703	Accreditation	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
53705	Postage & Shipping	$5,500	$50	$0	$0	$50	$2,800	$1,500	$9,900	$11,000	($1,100)
53706	Catering	$3,200	$0	$0	$0	$0	$0	$1,060	$4,260	$0	$4,260
	TOTAL PURCH. PROFESSIONAL SERVICES	**$1,469,996**	**$2,090**	**$1,450**	**$2,850**	**$2,300**	**$42,890**	**$164,961**	**$1,686,537**	**$1,555,266**	**$131,271**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Budget Manager/Object Code

Object	Account Description	Admin 00000	Guiteras 03104	Colt Andrews 03105	Rockwell 03106	Hugh Cole 03113	KMS 04112	Mt Hope 05107	Total Fy23	Total Fy22	Variance
GENERAL FUND											
PURCHASED PROPERTY SERVICES											
54201	Rubbish Disposal Services	$37,044	$0	$0	$0	$0	$0	$0	$37,044	$32,198	$4,846
54202	Snow Plowing & Removal Services	$2,400	$0	$0	$0	$0	$0	$0	$2,400	$12,000	($9,600)
54204	Groundskeeping Services	$80,410	$0	$0	$0	$0	$0	$0	$80,410	$70,000	$10,410
54205	Rodent & Pest Control Services	$3,000	$0	$0	$0	$0	$0	$0	$3,000	$3,300	($300)
54206	Cleaning Services	$0	$0	$0	$0	$0	$0	$5,220	$5,220	$2,575	$2,645
54310	Non-Tech Related Maint & Repair	$45,301	$0	$0	$0	$0	$3,500	$8,500	$57,301	$59,500	($2,199)
54311	Maintain & Repair - Fixtures & Equipment	$12,180	$0	$0	$0	$0	$0	$54,235	$66,415	$26,065	$40,350
54312	Maintain & Repair - General	$101,000	$0	$0	$0	$0	$0	$0	$101,000	$59,500	$41,500
54313	Maintain & Repair - Non- Student Vehicles	$0	$0	$0	$0	$0	$0	$0	$0	$3,035	($3,035)
54314	Maintain & Repair - Student Trans Vehicles	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
54320	Maintain & Repair - Tech-Related Hardware	$29,530	$0	$0	$0	$0	$0	$0	$29,530	$2,500	$27,030
54322	Maintenance & Repair-HVAC	$30,000	$0	$0	$0	$0	$0	$0	$30,000	$20,000	$10,000
54402	Water	$73,420	$0	$0	$0	$0	$0	$0	$73,420	$80,000	($6,580)
54403	Telephone	$96,000	$0	$0	$0	$0	$0	$0	$96,000	$96,000	$0
54404	Energy Management Services	$29,362	$0	$0	$0	$0	$0	$0	$29,362	$96,000	($66,638)
54406	Wireless Communications	$16,800	$0	$0	$0	$0	$0	$0	$16,800	$25,000	($8,200)
54407	Internet Connectivity	$14,630	$0	$0	$0	$0	$0	$0	$14,630	$40,000	($25,370)
54601	Rental of Land & Buildings	$36,000	$0	$0	$0	$0	$0	$27,000	$63,000	$20,000	$43,000
54602	Rental of Equipment & Vehicles	$88,999	$0	$0	$0	$0	$0	$0	$88,999	$60,000	$28,999
54603	Rental/Lease Computer & Related Equip	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
54604	Graduation Rentals	$0	$0	$0	$0	$0	$0	$13,800	$13,800	$15,000	($1,200)
54605	Ice Rink Rental	$0	$0	$0	$0	$0	$0	$3,500	$3,500	$8,000	($4,500)
54901	Other Purchased Property Services	$8,000	$0	$0	$0	$0	$0	$0	$8,000	$2,400	$5,600
54902	Alarm & Fire Safety Services	$41,226	$0	$0	$0	$0	$0	$0	$41,226	$59,950	($18,724)
54903	Moving & Rigging	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
54904	Vehicle Registration - Non-student Vehicles	$270	$0	$0	$0	$0	$0	$0	$270	$39	$231
	TOTAL PURCHASED PROPERTY SERVICES	**$745,572**	**$0**	**$0**	**$0**	**$0**	**$3,500**	**$112,255**	**$861,327**	**$697,062**	**$68,266**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Budget Manager/Object Code

Object	Account Description	Admin 00000	Guiteras 03104	Colt Andrews 03105	Rockwell 03106	Hugh Cole 03113	KMS 04112	Mt Hope 05107	Total Fy23	Total Fy22	Variance
GENERAL FUND											
OTHER PURCHASED SERVICES											
55110	Student Trans District, Indv, & Public Carrier	$0	$0	$0	$0	$0	$0	$300	$300	$300	$0
55111	Transportation Contractors	$3,407,978	$0	$0	$0	$0	$32,900	$124,290	$3,565,168	$3,362,278	$202,890
55121	Vehicle Registration (Student Trans Vehicle)	$0	$0	$0	$0	$0	$0	$0	$0	$300	($300)
55201	Property/Liability Insurance	$404,205	$0	$0	$0	$0	$0	$0	$404,205	$395,000	$9,205
55205	Flood Insurance	$121,585	$0	$0	$0	$0	$0	$0	$121,585	$91,017	$30,569
55206	Fleet/Vehicle Insurance	$0	$0	$0	$0	$0	$0	$0	$0	$6,773	($6,773)
55401	Advertising Costs	$2,000	$0	$0	$0	$0	$0	$0	$2,000	$2,000	$0
55501	Printing	$4,074	$0	$0	$300	$0	$0	$3,575	$7,949	$5,000	$2,949
55610	Tuition to Other School Districts InState	$512,014	$0	$0	$0	$0	$0	$0	$512,014	$375,000	$137,014
55630	Tuition to Private Sources	$1,098,896	$0	$0	$0	$0	$0	$0	$1,098,896	$1,569,000	($470,104)
55640	Tuition to Educational Service Agencies InState	$160,000	$0	$0	$0	$0	$0	$0	$160,000	$103,000	$57,000
55650	Tuition to Educational Service Agencies Out Stat	$747,831	$0	$0	$0	$0	$0	$0	$747,831	$609,000	$138,831
55660	Tuition to Charter Schools	$59,065	$0	$0	$0	$0	$0	$0	$59,065	$69,586	($10,521)
55690	Tuition - Dual Enrollment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
55705	Food Service Inspection Services	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
55801	Board Travel	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
55802	Travel - PD - School Committee	$1,000	$0	$0	$0	$0	$0	$0	$1,000	$0	$1,000
55803	Employee Travel - Non-Teachers	$13,322	$0	$0	$0	$0	$0	$0	$13,322	$12,000	$1,322
55807	Student Travel	$0	$0	$0	$0	$0	$0	$0	$0	$5,500	($5,500)
55808	Parent Travel	$0	$750	$750	$750	$750	$1,500	$1,250	$5,750	$5,500	$250
55809	Employee Travel - Teachers	$4,781	$0	$0	$0	$0	$0	$3,750	$8,531	$3,000	$5,531
55810	Travel - Other	$3,250	$0	$0	$0	$0	$0	$0	$3,250	$1,500	$1,750
	TOTAL PURCHASED SERVICES	**$6,540,001**	**$750**	**$750**	**$1,050**	**$750**	**$34,400**	**$133,165**	**$6,710,866**	**$6,615,753**	**$95,113**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Budget Manager/Object Code

Object	Account Description	Admin 00000	Guiteras 03104	Colt Andrews 03105	Rockwell 03106	Hugh Cole 03113	KMS 04112	Mt Hope 05107	Total Fy23	Total Fy22	Variance
GENERAL FUND											
SUPPLIES AND OTHER MATERIALS											
56101	General Supplies & Materials	$23,700	$13,388	$14,292	$18,157	$26,765	$59,720	$54,618	$210,640	$213,860	($3,220)
56112	Uniform/Wearing Apparel	$1,600	$0	$0	$0	$0	$9,920	$39,207	$50,727	$4,000	$46,727
56113	Graduation Supplies	$0	$0	$0	$0	$0	$0	$3,000	$3,000	$12,000	($9,000)
56115	Medical Supplies	$0	$1,000	$1,000	$1,000	$1,000	$2,500	$9,900	$16,400	$9,000	$7,400
56116	Athletic Uniforms/Supplies	$0	$0	$0	$0	$0	$6,504	$21,163	$27,667	$0	$27,667
56117	Honors/Awards Supplies	$935	$0	$0	$0	$0	$0	$3,500	$4,435	$4,161	$274
56201	Natural Gas	$326,175	$0	$0	$0	$0	$0	$0	$326,175	$321,600	$4,575
56202	Gasoline	$7,500	$0	$0	$0	$0	$0	$0	$7,500	$7,000	$500
56203	Diesel Fuel	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
56204	Propane Gas	$0	$0	$0	$0	$0	$0	$0	$0	$5,000	($5,000)
56207	Maintenance Supplies/Parts	$11,000	$0	$0	$0	$0	$0	$0	$11,000	$3,000	$8,000
56208	Bottled Gas	$2,000	$0	$0	$0	$0	$0	$0	$2,000	$0	$2,000
56209	Fuel Oil	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
56211	Maintenance-Other Supplies	$39,100	$0	$0	$0	$0	$0	$0	$39,100	$31,500	$7,600
56213	Maintenance-Glass	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
56214	Maintenance-Paint	$16,000	$0	$0	$0	$0	$0	$0	$16,000	$16,000	($0)
56215	Electricity	$463,000	$0	$0	$0	$0	$0	$0	$463,000	$480,000	($17,000)
56216	Maintenance-Lumber and Hardware	$2,500	$0	$0	$0	$0	$0	$0	$2,500	$1,000	$1,500
56217	Maintenance-Plumbing and Heating	$12,700	$0	$0	$0	$0	$0	$0	$12,700	$10,000	$2,700
56218	Maintenance-Electrical	$10,700	$0	$0	$0	$0	$0	$0	$10,700	$10,000	$700
56219	Custodial Supplies	$97,500	$0	$0	$0	$0	$0	$0	$97,500	$75,000	$22,500
56220	Materials for Snow & Ice Removal	$3,600	$0	$0	$0	$0	$0	$0	$3,600	$4,000	($400)
56401	Textbooks	$0	$863	$1,188	$0	$0	$0	$25,934	$27,985	$34,933	($6,948)
56402	Library Books	$0	$530	$1,041	$500	$1,000	$3,721	$5,000	$11,792	$5,500	$6,292
56403	Reference Books	$500	$0	$0	$0	$0	$0	$0	$500	$925	($425)
56404	Subscriptions & Periodicals	$283	$0	$250	$0	$1,600	$500	$1,950	$4,583	$8,000	($3,417)
56406	Textbooks - Non-Public	$0	$0	$0	$0	$0	$0	$0	$0	$6,000	($6,000)
56407	Web-bases Software or Databases-Library	$15,992	$0	$0	$0	$0	$0	$0	$15,992	$13,324	$2,668
56410	Dual Enrollment	$0	$0	$0	$0	$0	$0	$8,400	$8,400	$200	$8,200
56501	Technology-Related Supplies	$44,150	$0	$0	$0	$0	$0	$0	$44,150	$70,000	($25,850)
	TOTAL SUPPLIES AND OTHER MATERIALS	**$1,078,935**	**$15,780**	**$17,771**	**$19,657**	**$30,365**	**$82,866**	**$172,672**	**$1,418,045**	**$1,346,003**	**$72,042**

Fy2023 School Committee ADOPTED Non-Staffing Expenditures Budget Manager/Object Code

Object	Account Description	Admin 00000	Guiteras 03104	Colt Andrews 03105	Rockwell 03106	Hugh Cole 03113	KMS 04112	Mt Hope 05107	Total Fy23	Total Fy22	Variance
GENERAL FUND											
PROPERTY AND CAPITAL EXPENDITURES											
57301	Vehicles	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
57305	Equipment	$26,650	$435	$0	$0	$0	$14,261	$46,592	$87,938	$5,000	$82,938
57306	Furniture & Fixtures	$42,200	$0	$0	$0	$0	$0	$0	$42,200	$1,500	$40,700
57309	Technology-Related Hardware	$59,550	$0	$0	$0	$0	$0	$0	$59,550	$228,200	($168,650)
57311	Technology Software	$16,825	$0	$0	$0	$0	$0	$0	$16,825	$15,000	$1,825
	TOTAL PROPERTY AND CAPITAL EXP	**$145,225**	**$435**	**$0**	**$0**	**$0**	**$14,261**	**$46,592**	**$206,514**	**$249,700**	**($43,186)**
MISC. EXPENDITURES											
58101	Professional Organization Fees	$25,102	$543	$1,167	$1,600	$1,190	$1,800	$8,346	$39,748	$25,000	$14,748
58102	Other Dues & Fees	$1,000	$885	$0	$0	$0	$8,299	$33,653	$43,837	$32,000	$11,837
58103	Bank Fees	$15,000	$0	$0	$0	$0	$0	$0	$15,000	$15,000	$0
58104	Licenses & Permit Fees	$80	$0	$0	$0	$0	$0	$0	$80	$15,000	($14,920)
58206	Claims and Settlements	$10,000	$0	$0	$0	$0	$0	$0	$10,000	$750	$9,250
58901	Other Misc Expenses	$0	$0	$0	$0	$0	$0	$0	$0	$400	($400)
58902	Bad Debt	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
	TOTAL MISC. EXPENDITURES	**$51,182**	**$1,428**	**$1,167**	**$1,600**	**$1,190**	**$10,099**	**$41,999**	**$108,665**	**$73,150**	**$20,515**
	TOTAL GENERAL FUND EXPENDITURES	**$10,030,910**	**$20,483**	**$21,138**	**$25,157**	**$34,605**	**$188,016**	**$671,645**	**$10,991,953**	**$10,536,934**	**$344,019**

FY2023 School Committee ADOPTED Budget

Section V

Staffing Chart Summary by Location

Bristol Warren Regional Schools District
Fy2023 GENERAL FUND Staffing Budget
School Committee ADOPTED 03-01-22

Staffing By Category	Fy21 SC ADOPTED Original FTEs	08/30/21	Fy22 SC ADOPTED REVISED FTEs	01/10/22	Fy23 SC ADOPTED FTEs	03/01/22	Variance 03/01/22 vs. 01/10/22 ADOPTED REVISED FTEs	Budget
Admin/Oliver Bldg	26.32	$1,958,479	26.05	$1,876,404	57.15	$4,410,919	31.10	$2,534,515
Colt Andrews Elem.	44.00	$2,939,091	43.50	$2,850,129	34.96	$2,489,358	(5.54)	($360,772)
Guiteras Elem.	32.97	$2,275,473	34.17	$2,312,740	30.51	$2,149,939	(3.66)	($162,801)
Hugh Cole Elem.	82.56	$5,113,207	87.40	$5,167,805	68.46	$4,616,294	(18.94)	($551,511)
Rockwell Elem.	27.43	$2,000,714	27.43	$1,906,490	25.56	$1,802,241	(1.87)	($104,249)
Kickemuit Middle	85.97	$6,312,022	88.37	$6,270,022	82.45	$6,136,780	(5.92)	($133,242)
Mt. Hope High	104.39	$7,719,473	110.84	$7,852,514	97.73	$7,393,357	(13.11)	($459,157)
Subtotal By Bldgs:	403.64	$28,318,459	417.76	$28,236,104	396.83	$28,998,887.25	(17.93)	$762,784
Other Categories								
Retirees		$375,391		$175,000				($175,000)
School Committee		$35,750		$35,751		$36,000		$249
Interns-Public Presentations					0.00	$2,500	0.00	$2,500
Interns-Business Office (NE)					0.00	$40,000	0.00	$40,000
Interns-Technology Dept	0.00	$20,000	Included in Tech Dept Sal Above		0.00	$18,200	0.00	$18,200
Tchr Fellows-Supplement		$185,788		$0				
GuidSummer-Supplement		$21,000		$0				
Other Contingencies						($250,000)		($250,000)
Salary - Nurse - OLMC Share with GU			0.1	$1,782	to Asst. Super's Office		(0.10)	($1,782)
Consult-SpedOT HC		$20,000		$0				
Subtotal Other Categories:	0.00	$678,829	0.10	$212,532	0.00	($153,300)	(0.10)	($365,832)
TOTAL SALARY-51110	403.64	$28,997,288	417.86	$28,448,636	399.83	$28,845,587	(18.03)	$396,951
			14.22	($548,652)	(21.03)	$511,770.54		

FY2023 School Committee ADOPTED Budget

Section VI

Community Support - Requested Allocation

BRISTOL WARREN REGIONAL SCHOOL DISTRICT FISCAL YEAR 2023 [illegible]T SUMMARY BY OBJECT

School Committee ADOPTED General & Debt Fu[illegible]udget

Object	Account Description	FY 2019 Actual	FY 2020 Actual	FY 2021 Budget	Fy2021 Under Audit 6/30/2021 As of 11/14/21	Fy2022 SC ADOPTED REVISED 1/10/2022	Fy2023 SC ADOPTED 3/1/2022	Variance Super. Rec. vs SC ADOPTED REVISED	% Increase/ <Decrease>
GENERAL FUND REVENUE									
41210	Local Appropriation/General Fund Town of Bristc	$26,331,830	$26,717,032	$27,447,852	$27,447,563	*$27,812,066*	*$28,359,973.00*	$547,907	2.0%
41210	Local Appropriaiton/Debt Service Town of Warre	$11,501,259	$11,713,014	$12,237,148	$12,237,437	*$13,063,484*	*$13,537,466.00*	$473,982	3.6%
41250	Budgeted Use of Fund Balance/SEL	$0	$0	$1,186,561	$0	*$498,908*	*$0*	($498,908)	0.0%
41250	Budgeted Use of Fund Balance/Other One Time	$0	$0	$0	$0	*$0*		$0	0.0%
41310	Tuition From Individuals	$54,216	$36,984	$54,004	$8,008	*$61,107*	*$50,000*	($11,107)	-18.2%
41510	Interest Income	$68,452	$52,533	$68,866	$5,739	*$45,000*	*$25,000*	($20,000)	-44.4%
41702	Bookstore/Lock Sales & Rental Revenue	$4,020	$1,050	$1,000	$0	*$1,000*	*$1,000*	$0	0.0%
41707	Other Fees District Activities/Charges Recovered	$3,393	$374	$3,393	$53,198	*$3,393*	*$5,000*	$1,607	47.4%
41750	Revenue from Enterprise Activities	$2,406	$0	$0	$0	*$0*		$0	0.0%
41901	Use of Facilities Rental	$1,850	$1,700	$4,000	$0	*$4,000*	*$5,000*	$1,000	25.0%
41920	Contributions and Donations Private Sources	$100		$0	$0	*$0*		$0	0.0%
41980	Refund of Prior Year Expenditures	$132,484	$105,106	$100,000	$235,164	*$100,000*	*$150,000*	$50,000	50.0%
41990	Miscellaneous Revenue	$21	$2,763	$100	$495	*$100*	*$2,500*	$2,400	2400.0%
43101	State Aid-Funding Formula	$14,623,085	$14,059,046	$13,099,119	$14,147,445	*$12,765,716*	*$12,729,035*	($36,681)	-0.3%
44107	Indirect Cost Revenue	$0	$0	$0	$0	*$0*		$0	0.0%
44202	Medicaid Reimbursement Revenue	$475,648	$372,934	$420,000	$289,019	*$475,000*	*$500,000*	$25,000	5.3%
	TOTAL REVENUE GENERAL FUND	**$53,198,764**	**$53,062,536**	**$54,622,043**	**$54,424,067**	**$54,829,774**	**$55,364,974**	**$535,200**	1.0%
GENERAL FUND EXPENDITURES By Category									
51xxx	**EMPLOYEE COMPENSATION-SALARIES**	$30,105,288	$29,877,884	$30,907,688	$30,925,371	$30,292,264	$30,636,570	$344,307	1.1%
52xxx	**EMPLOYEE COMPENSATION-BENEFITS**	$12,705,262	$12,626,524	$13,732,207	$13,421,721	$13,584,933	$13,736,450	$151,517	1.1%
53xxx	**PURCHASED PROFESSIONAL SERVICES**	$1,498,746	$1,320,910	$1,360,403	$1,487,887	$1,681,444	$1,686,537	$5,092	0.3%
54xxx	**PURCHASED PROPERTY SERVICES**	$653,950	$862,336	$529,488	$701,814	$1,015,392	$861,327	($154,065)	-15.2%
55xxx	**OTHER PURCHASED SERVICES**	$5,813,303	$5,172,647	$6,474,474	$6,003,222	$6,650,447	$6,710,866	$60,419	0.9%
56xxx	**SUPPLIES AND OTHER MATERIALS**	$1,426,299	$1,133,807	$1,520,280	$1,461,939	$1,402,413	$1,418,045	$15,632	1.1%
57xxx	**PROPERTY AND CAPITAL EXPENDITURES**	$428,783	$51,839	$20,847	$55,522	$129,403	$206,514	$77,111	59.6%
58xxx	**MISC. EXPENDITURES**	$145,668	$76,158	$76,657	$87,214	$73,478	$108,665	$35,187	47.9%
	TOTAL EXPENDITURES GENERAL FUND	$52,777,299	$51,122,104	$54,622,043	$54,144,689	$54,829,774	$55,364,974	$535,200	1.0%
	General Fund Surplus/<Deficit>	**$421,466**	**$1,940,432**	**$0**	**$279,378**	**($0)**	**$0**	**$0**	
DEBT SERVICE REVENUE									
					REVENUE FROM LOCAL GOVERNMENTAL UNITS				
41210	Bristol Appropriation/Transfer Debt Service	$163,823	$163,823	$407,868	$408,157	*$439,831*	*$402,670*	($37,161)	-8.4%
41210	Warren Appropriation/Transfer Debt Service	$71,555	$71,555	$182,265	$181,976	*$206,591*	*$242,856*	$36,265	17.6%
41250	Transfer/Budgeted Use of Fund Balance	$977,500	($1,976)	$54,334	$0	*$0*	*$0*	$0	0.0%
43202	State Housing Aid Reimbursement/Debt Service	$1,350,772	$1,350,772	$937,983	$937,983	*$940,828*	*$939,524*	($1,304)	-0.1%
	TOTAL DEBT SERVICE FUND REVENUE	**$2,563,650**	**$1,584,174**	**$1,582,450**	**$1,528,116**	**$1,587,250**	**$1,585,050**	**($2,200)**	-0.1%
DEBT SERVICE EXPENSES									
58311	Bond Principal Payment	$2,494,200	$1,089,510	$1,130,000	$1,130,000	*$1,180,000*	*$1,225,000*	$45,000	3.8%
58322	Bond Interest Payment	$69,450	$494,664	$452,450	$452,294	*$407,250*	*$360,050*	($47,200)	-11.6%
	TOTAL DEBT SERVICE FUND EXPENDITURES	**$2,563,650**	**$1,584,174**	**$1,582,450**	**$1,582,294**	***$1,587,250***	**$1,585,050**	**($2,200)**	-0.1%
	Debt Service Fund Surplus/<Deficit>	**$0**	**$0**	**$0**	**($54,178)**	**$0**	**$0**	**$0**	
TOTAL GENERAL & DEBT SERVICE FUNDS		**$55,340,949**	**$52,706,277**	**$56,204,493**	**$55,726,983**	**$56,417,024**	**$56,950,024**	**$533,000**	

Fy2023 School Committee Adopted Recommended General and Debt Fund Budget
JOINT FINANCE COMMITTEE MEETING
MARCH 03, 2022

Calculation of Bristol & Warren's 13 Year Average Enrollment by Community

October 1st Enrollment by Town - 1992 - 2014
June Average Daily Membership - 2014-2023

			1	2	3	4	5	6	7	8	9	10	11	12	13	AVERAGE	
	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY 23	FY 22
	10/1/2007	10/1/2008	10/1/2009	10/1/2010	10/1/2011	10/1/2012	10/1/2013	6/1/2014	6/1/2015	6/1/2016	6/1/2017	6/1/2018	6/1/2019	6/1/2020	6/1/2021	13 YR	13 YR AVE
BRISTOL	2,237	2,271	2,298	2,265	2,233	2,249	2,120	2,106	2,041	2,033	1,944	1,942	1,943	1,910	1,881	2,074	2,104
	64.4%	64.2%	64.2%	64.0%	63.6%	65.4%	61.9%	62.1%	61.4%	61.9%	61.3%	60.8%	60.6%	61.0%	61.9%	62.38%	62.55%
WARREN	1,236	1,268	1,281	1,273	1,280	1,192	1,304	1,284	1,281	1,250	1,228	1,252	1,263	1,219	1,156	1,251	1,260
	35.6%	35.8%	35.8%	36.0%	36.4%	34.6%	38.1%	37.9%	38.6%	38.1%	38.7%	39.2%	39.4%	39.0%	38.1%	37.62%	37.4%
TOTAL	3,473	3,539	3,579	3,538	3,513	3,441	3,424	3,390	3,322	3,283	3,172	3,194	3,206	3,129	3,037	3,325	3,364
% change																	
BRISTOL	N/A	0.24%	-0.04%	0.19%	0.46%	-1.80%	3.44%	-0.21%	0.69%	-0.49%	0.64%	0.48%	0.20%	-0.44%	-0.89%		
WARREN	N/A	-0.24%	0.04%	-0.19%	-0.46%	1.80%	-3.44%	0.21%	-0.69%	0.49%	-0.64%	-0.48%	-0.20%	0.44%	0.89%		

Fy2023 School Committee Adopted Recommended General and Debt Fund Budget

JOINT FINANCE COMMITTEE MEETING

MARCH 03, 2022

Request for Additional Funding from Each Community- Based on 13 Year Average Enrollment by Community

COMMUNITY SUMMARY	Fy19 Actual	Fy20 Actual % Increase	Fy20 Actual $$ Increase	Fy20 Actual	Fy21 Actual % Increase	Fy21 Actual $$ Increase	Fy21 Actual	Fy22 Actual % Increase	Fy22 Actual $$ increase	Fy22 Actual	Fy23 Requested % Increase	Fy23 Requested $$ Increase	Fy23 Requested
Bristol Gen	$26,331,830	1.46%	$385,202	$26,717,032	2.73%	$730,531	$27,447,563	1.33%	$364,503	$27,812,066	1.97%	$547,907	$28,359,973
Bristol Debt	$163,823	0.00%	$0	$163,823	149.15%	$244,334	$408,157	7.76%	$31,674	$439,831	-8.45%	($37,161)	$402,670
Subtotal	$26,495,653	1.45%	$385,202	$26,880,855	3.63%	$974,865	$27,855,720	1.42%	$396,177	$28,251,897	1.81%	$510,746	$28,762,643
Warren Gen	$11,501,259	1.84%	$211,755	$11,713,014	4.48%	$524,423	$12,237,437	6.75%	$826,047	$13,063,484	3.63%	$473,982	$13,537,466
Warren Debt	$71,555	0.00%	$0	$71,555	154.32%	$110,421	$181,976	13.53%	$24,615	$206,591	17.55%	$36,265	$242,856
Subtotal	$11,572,814	1.83%	$211,755	$11,784,569	5.39%	$634,844	$12,419,413	6.85%	$850,662	$13,270,075	3.85%	$510,247	$13,780,322
TOTAL	$38,068,467	1.57%	$596,957	$38,665,424	4.16%	$1,609,709	$40,275,133	3.10%	$1,246,839	$41,521,972	2.46%	$1,020,993	$42,542,965

Fy23 School Department Request
School Committee ADOPTED Recommended Fy2023 Budget
General and Debt Fund Budget

Fy23 Adopted Budget	General Fund	Debt Fund	TOTAL Budget
ADOPTED RECOMMENDED BUDGET	$55,364,974	$1,585,050	$56,950,024
Other District Revenues			
Tuitions	($50,000)		($50,000)
Interest Income	($25,000)		($25,000)
Bookstore/Lock Sales	($1,000)		($1,000)
Other Fees	($5,000)		($5,000)
Use of Facilities	($5,000)		($5,000)
Refunds from of Prior Year Exp	($150,000)		($150,000)
Misc Income	($2,500)		($2,500)
State Aid-Non Community Based	($1,383,312)	($939,524)	($2,322,836)
Medicaid Reimbursements	($500,000)		($500,000)
Community Funding Needed:	***$53,243,162***	***$645,526***	$53,888,688

Allocation of Funding By Community

	13 Yr Ave Enroll	Gen Fund	Debt Serv	TOTAL
Bristol	***62.38%***	***$33,212,313***	***$402,670***	$33,614,983
Less Fy22 Contributions		($27,812,066)	($439,831)	($28,251,897)
Less Bristol State Aid		($4,852,340)		($4,852,340)
Total $$ Request		$547,907	($37,161)	$510,746
% Increase				1.81%
Warren	***37.62%***	***$20,030,849***	***$242,856***	$20,273,705
Less Fy22 Contributions		($13,063,484)	($206,591)	($13,270,075)
Less State Aid		($6,493,383)		($6,493,383)
Total $$ Request		$473,982	$36,265	$510,247
% Increase				3.85%

15: UTILITY INCENTIVES

INCLUSIONS:

- Utility Incentive Statement

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

February 15, 2023

Mario Carreno, ALEP
Chief Operating Officer
School Building Authority
Rhode Island Department of Education
255 Westminster Street
Providence, RI 02903

Utility Incentives Statement

The Bristol Warren Regional School Department shall participate in the energy efficiency and technical assistance programs that are available through utility and government programs.

Current National Grid Representatives are as follows:

Renovation Projects
Jim Whitehead
jim.whitehead@nationalgrid.com.

New Construction
Kathleen Arthur
Kathleen.arthur@nationalgrid.com

Recent information completed under the new construction program, for work underway, has been included as a reference.

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

Jarred Jackson

Subject: FW: Bristol Warren Regional School District RIDE Stage I Submission Utility Incentives Request

From: Beckstrom, Tracey A. [US-US] <Tracey.A.Beckstrom@leidos.com>
Sent: Thursday, February 2, 2023 10:36 AM
To: Jarred Jackson <Jarred.Jackson@collierseng.com>
Subject: RE: Bristol Warren Regional School District RIDE Stage I Submission Utility Incentives Request

This message originated from outside your organization

Jarrad,

Thanks. What I will do is get this over to the manager of EE at RI Energy and ask that he has an email sent to you confirming that they will work with the school department to support the projects before 2/8. We can just send that to you, correct?

Thanks

Tracey Beckstrom| Leidos
Rhode Island Energy **Consultant**
New Construction Energy Efficiency
(508) 736-8477
tracey.a.beckstrom@leidos.com | http://energy.leidos.com/
Connect on LinkedIN

From: Jarred Jackson <Jarred.Jackson@collierseng.com>
Sent: Thursday, February 2, 2023 10:02 AM
To: Beckstrom, Tracey A. [US-US] <Tracey.A.Beckstrom@leidos.com>
Subject: EXTERNAL: RE: Bristol Warren Regional School District RIDE Stage I Submission Utility Incentives Request

CAUTION: This email originated from outside of Leidos. Be cautious when clicking or opening content.

Hi Tracey,

I need to get the final RIDE Stage I to the school committee by Wednesday 2/8 for there approval to submit to RIDE. We do not currently have a plan of action and I would expect that we will touch all schools, with possible new school buildings being built. This RIDE stage I is the gathering of information stage, the Stage II is the design plan stage which will be submitted this September. Typically in the past for our RIDE Stage I Submissions we have received an email from National Grid stating that they will work with the school department to include all applicable possible utility incentives in any upcoming projects.

Jarred Jackson

Project Manager | Project Leaders
Jarred.Jackson@collierseng.com
Main: 401.600.4885 Mobile: 401.439.1098
72 Pine Street | Providence, RI 02903
cplusa.com

From: Beckstrom, Tracey A. [US-US] <Tracey.A.Beckstrom@leidos.com>
Sent: Thursday, February 2, 2023 9:48 AM
To: Jarred Jackson <Jarred.Jackson@collierseng.com>
Subject: RE: Bristol Warren Regional School District RIDE Stage I Submission Utility Incentives Request

This message originated from outside your organization

Jarrad,

Can you tell me when you need the information for your submittals. Also do you know yet what projects they have planned? Just let me know. Thanks

Tracey Beckstrom| Leidos
Rhode Island Energy **Consultant**
New Construction Energy Efficiency
(508) 736-8477
tracey.a.beckstrom@leidos.com | http://energy.leidos.com/
Connect on LinkedIN

From: Jarred Jackson <Jarred.Jackson@collierseng.com>
Sent: Wednesday, February 1, 2023 9:49 AM
To: Beckstrom, Tracey A. [US-US] <tracey.a.beckstrom@leidos.com>
Subject: EXTERNAL: Bristol Warren Regional School District RIDE Stage I Submission Utility Incentives Request

CAUTION: This email originated from outside of Leidos. Be cautious when clicking or opening content.

Good Morning Tracey,

I am writing to you on behalf of the Bristol Warren Regional School District, who is in the process of completing a RIDE-SBA Necessity of School Construction Stage I Submission application for Capital Improvements to all schools within the District. I wanted to reach out to yourself and RI Energy to discuss and ensure that BWRSD will be able to apply for all available incentive programs provided by RI Energy in their future construction. I also wanted to ask if you have any additional information or documentation for utility incentives that you could send over for us to include within our submission to RIDE. Please feel free to reach out to me with any questions or concerns, thank you in advance for all of your help with the Utility Incentives Submission.

Jarred Jackson
Project Manager | Project Leaders
Jarred.Jackson@collierseng.com
Main: 401.600.4885 Mobile: 401.439.1098
72 Pine Street | Providence, RI 02903

cplusa.com

Colliers Project Leaders

A Division of Colliers Engineering & Design

DISCLAIMER This e-mail is confidential. It may also be legally privileged. If you are not the addressee you may not copy, forward, disclose or use any part of this email text or attachments. If you have received this message in error, please delete it and all copies from your system and notify the sender immediately by return e-mail. Internet communications cannot be guaranteed to be timely, secure, error or virus free. The sender does not accept liability for any errors or omissions. Any drawings, sketches, images, or data are to be understood as copyright protected.

16: PROCUREMENT PRACTICES

INCLUSIONS:

- Procurement Statement
- OPM Agreement
  - OPM RFP
  - OPM Proposal

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 HIGH STREET, 2nd FLOOR, BRISTOL RI 02809
WWW. BWRSD.ORG (401) 253-4000

Ana C. Riley
Superintendent of Schools

Procurement Practices Statement

The Bristol Warren Regional School District shall comply with all federal, state and local laws and regulations applicable to the school department's procurement practices, including those related to minority hiring.

References:

https://ridop.ri.gov/

www.mbe.ri.gov

Inclusions:

OPM RFP
Proposal Response from Selected OPM (Colliers)

The Bristol Warren Regional School District does not discriminate on the basis of age, sex, race, religion, National origin, color, disability or sexual orientation in accordance with applicable laws and regulations.

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 High Street
Bristol, Rhode Island 02809

Public RFP# 5-3-25-22

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission

In order to retrieve the RFP bid, interested parties must complete the specific bid google form located on our website so that we can obtain your contact information so that all interested bidders will receive all bid documents, addendums and FAQ's that may be added during the active bid.

As stated above, This RFP must be obtained on the Bristol Warren Regional School District's website on the Business & Finance Department's Bid page located at the following link: https://www.bwrsd.org/Page/2880 to ensure proper registration to receive all documents.

General Bid Schedule

RFP Released		March 25, 2022
Bidder Questions and Clarifications Ends		April 8, 2022 4:00pm
Response to Questions/Issue Addendum		April 11, 2022
Bids Due Back		**April 15, 2022 3:00 pm**
Bid Opening		April 15, 2022 3:15 pm
Planned Date to Submit Stage I to RIDE	No later than	September 09, 2022

All responses to this RFP must be submitted including the bid form provided, **(3) three hard copies**, and One(1) digital copy on a USB Flash Drive, clearly marked:

Sealed Bid
5 Year Capital Improvement Plan

Bids must be enclosed in an opaque envelope addressed to Bristol Warren Regional School District Administrative Offices, Attn: Anthony Ferrucci, CFO, 235 High Street, Bristol, RI 02809 bearing the name and address of the bidder.

The Bristol Warren Regional School District reserves the right to reject any/all bids, waive any informalities in the bids received and to accept and award the bid to the lowest qualified bid deemed most favorable to the interest of the Bristol Warren Regional School District.

All questions should be submitted to the Administrative Office by email to thomas.wood@bwrsd.org no later than **April 8, 2022 at 4:00 p.m.**

Proposals misdirected to other locations or those not received at the BWRSD School Department Administration Building by the scheduled due date and time shall be determined to be late and shall not be accepted. Proposals faxed or emailed to the BWRSD School

Department shall not be accepted.

STANDARD INSTRUCTIONS TO BIDDERS
BRISTOL WARREN REGIONAL SCHOOL DISTRICT

The following instructions are standards for all proposals submitted:

1. Receipt and Opening of Proposal

Sealed proposals (bids) will be accepted in the BWRSD Administrative Offices, Attn: Anthony Ferrucci, CFO, 235 High Street, Bristol, RI 02809 until the time indicated on the advertisement for Bids, for the commodities, equipment, and/or services designated in the specifications and will then be opened in person and read.

2. Form of Bid

Proposal must be submitted on and in accordance with the forms attached hereto, blank places must be filled in as noted, no change shall be made in the phraseology of the proposal or in the item or items mentioned therein, must contain the name and proper address of the bidding firm, and must be signed by a responsible member of the firm with his/her signature and official title. Proposals that are not complete, or contain any omissions, erasures, alterations, additions and/or contain irregularities of any kind, may be rejected.

3. Submission of Bids

a. The Bristol Warren Regional School District (henceforth "The District") will decide when the specified time has arrived to open bids, and no bid received thereafter will be considered.

b. Any bidder may withdraw his/her bid by written request at any time prior to the advertised time for opening. Telephonic bids, amendments, or withdrawals will not be accepted.

c. Unless otherwise specified, no bid may be withdrawn for a period of ninety (90) days from the date of bid opening.

d. Negligence on the part of the bidder in preparing the bid confers no rights for the withdrawal of the bid after it has been opened.

e. Proposals received prior to the time of opening will be securely kept unopened. No responsibility will attach to an officer or person for the premature opening of a proposal not properly addressed and identified.

4. Prices

Bidders shall state the proposed price in the manner as designated in the Bid Proposal Form. In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall govern. In the event there is a discrepancy between the price written in words and written in figures, the prices written in words shall govern.

5. Rhode Island Sales Tax

The District is exempt from the payment of R.I. Sales Tax under the 1956 General Laws of the State of Rhode Island, 44-18-30 (1), as amended.

6. Federal Excise Taxes

The District is exempt from the payment of any excise or federal transportation taxes. The price bid must be exclusive of taxes and will be so construed.

7. Equal Employment Opportunity Policy Statement

For the purposes of this Policy, the term “vendor” shall mean any and all individuals, companies, corporations, and business entities that provide goods or services to the District pursuant to any and all relevant and appropriate Federal, State, and local purchasing rules, regulations, and procedures.

The District is committed to the general policy and principle of Equal Employment Opportunity in terms of retaining vendors to provide the District with goods and services necessary for routine and emergency operations. The District shall not discriminate against vendors as entities, or individual employees thereof on any legally recognized basis included, but not limited to, race, age, color, religion, gender, gender identification, marital status, national origin, physical or mental disability, Veteran’s status, pregnancy, sexual orientation, genetic conditions, predisposition to certain diseases, or ancestry, except where a bona fide occupational qualification exists.

The vendor shall complete the Business Enterprise Utilization Plan Form-
Appendix B

8. Schools Right to Reject

The District reserves the right to reject any and all proposals, to waive any informality in the proposals received and to accept the proposal deemed to be most favorable to the best interests of the District.

9. Labor Regulations

a. The Contract for Work under this proposal will obligate the contractor and subcontractors not to discriminate in employment practices and conform with the Affirmative Action Plan pursuant to Executive Order No. 11246.

b. Bidders must, if required, submit a compliance report concerning their employment practices and policies in order to maintain their eligibility to receive the award of the Contract.

c. Successful bidders must, if required, submit a list of all subcontractors who will perform Work on the Project, and written signed statements from authorized agents of labor pools with which they will or may deal with for employees on the Work, together with any information to the effect that such labor pools practices or policies are in conformity with Executive Order No. 11246

10. Payment

Vendor shall submit monthly invoices for payment to the District. The Invoices shall include: Dates of service, scope of work and hours worked The District will promptly pay within two weeks of receiving Invoices. Payments will be made via check. W-9 required for processing.

11. Termination of Contract

Following implementation, should the Superintendent and/or Chief Financial Officer find that the firm has failed in any material respect to perform its agreed upon obligations

under the contract, the contract shall be canceled by the District as being in the best interest of the District. In the event of termination of this contract as a result of breach by the contractor, the District shall not be liable for any fees and may, as its sole option, award a contract for the same services to another qualified firm or call for new proposals. The contractor shall be responsible for consequential damages as a result of its breach, including, but not limited to, extra costs required under the new contract for similar services.

12. Period of Performance

The period of performance for this contract shall be 12 months. Subject to extension only by mutual agreement.

13. Indemnification and Insurance

The vendor selected shall indemnify and save the District harmless from liability in any manner of claims, lawsuits and damages for any type of losses, including the loss of life, due to its work or operations on District property, in carrying out and completing the full scope of services under this agreement.

The vendor shall meet the insurance and indemnification requirements as prescribed in the Insurance Appendix A Insurance- Exhibit Professional Contracts.

14. Collusion

Any act or acts of misrepresentation of collusion shall be a basis for disqualification of any proposal or proposals submitted by such persons guilty of said misrepresentation or collusion. In the event that the District enters into a contract with any proposer who is guilty of misrepresentation or collusion and such conduct is discovered after the execution of said contract, the District may cancel said contract without incurring liability, penalty, or damages.

SPECIFICATIONS
Bristol Warren Regional School District

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission:

INTENT

The Bristol Warren Regional School District District (henceforth “the District") is seeking bids for the services of a professional architecture, engineering and educational facilities planning firm (the “Firm”) to complete a Facilities Conditions Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission (the “Plan”) as described in the scope of work.

The District will select a Firm through a qualifications-based selection process for the procurement of architectural and engineering consulting services. Responses will be evaluated on the basis of the relative merits of the proposal and firms will be ranked based on the criteria described in this RFP. The top firm will be selected and enter into fee negotiations with the District. If an agreement cannot be reached between these parties, the District may elect to enter into negotiations with the next highest ranked firm. The District reserves the right to negotiate with the top firm for additional professional services related to the creation and submission of a RIDE Necessity of School Construction Stage II Submission.

The Facilities Conditions Assessment of the District’s schools will identify any deficiencies in the existing buildings and site, including program and service areas, space, utility systems and infrastructure, telecommunications/technology, parking, traffic patterns and grounds, and health and safety conditions.

The Education Facilities Master Plan will address short and long term District planning, both educationally and in regard to the suitability of the current school facilities to provide for the educational needs of the District’s students. The development of a 21st century teaching and learning model needs to include the entirety of the buildings and grounds that house our pre-k to grade 12 academic programs.

The 5 Year Capital Improvement Plan will be developed through the consideration and prioritization of the information contained in the Educational Facilities Master Plan and Facilities Conditions Assessment and will be submitted to the Rhode Island Department of Education (RIDE) for approval through a Necessity of School Construction Stage I application.

Section 1: DISTRICT OVERVIEW

The District is located in Bristol and Warren, Rhode Island. The District has a superintendent that reports to a nine member elected school committee that is responsible for the management of the District.

The District has approximately 397 full time employees. The District educates approximately 3,089 students from preschool through grade 12. The District’s facilities include four elementary schools, one middle school, one high school.

The Bristol Warren Regional School District facilities included in this RFP are:

Colt Andrews Elementary School (2 buildings)

Colt	Andrews
570 Hope Street	574 Hope Street
Bristol, RI 02809	Bristol, RI 02809
Grades 4 - 5	Grades K - 3
24,206 SF	31,817 SF

Guiteras Elementary School
35 Washington Street
Bristol, RI 02809
Grades PK - 5
39,107 SF

Rockwell Elementary School
35 Washington Street
Bristol, RI 02809
Grades PK - 5
25,609 SF

Hugh Cole Elementary School
50 Asylum Road
Warren, RI 02885
Grades PK - 5
84,536 SF

Kickemuit Middle School
525 Child Street
Warren, RI 02885
Grades 6 - 8
149,915 SF

Mt. Hope High School
199 Chestnut Street
Bristol, RI 02809
Grades 9 - 12
177,732 SF

Section 2: PROPOSING FIRM QUALIFICATIONS

Proposing Firms should possess the following skills, knowledge, experience and qualifications:

1. Certified as an Accredited Learning Environment Planner (ALEP) by the Association for Learning Environments (A4LE).

2. National experience regarding best practices and standards in education.

3. Research based knowledge of best models for achieving educational goals and outcomes.

4. Educational facilities conditions assessment.

5. Educational facilities master planning and space planning.

6. Conceptual design.

7. Curriculum models.

8. Cost estimating.

9. Analyzing options for new school construction versus existing school renovation to maximize the effective use of all facilities.

10. Proven record of success with the filing and approval of RIDE Necessity of Construction Stage I applications.

11. Experience working with school districts and community-wide constituent groups on the specific task of developing a comprehensive 21st century pre-K to 12 model for teaching and learning throughout its facilities. The process utilized must seek and integrate input from all District stakeholders including teachers, students, parents, administrators, School Committee, Town Council and the community at large.

12. Successful experience designing and guiding an approach that builds consensus among constituent groups in the District. Community stakeholders should be meaningfully involved at every stage in the development of the Plan. The process needs to incorporate information gathered from all stakeholders, including focus groups and public meetings.

Section 3: SCOPE OF WORK

The Firm shall develop a Facilities Conditions Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Stage I Submission (the “Plan”) based on the following scope of work:

1. The Firm shall ensure that the Plan complies with all state and federal requirements.

2. The Firm shall develop and document a thorough, objective Educational Facilities Master Plan that evaluates the educational system (PK-12 curriculum, demographics, facilities, educational outcomes) and establishes long term strategic actions/costs based on the following factors:

   a. 21st Century Teaching and Learning Practices

b. Optimum size learning environments, including class size, grade configuration
c. Space characteristics and recommended support spaces
d. Effective integration of instructional technology
e. Support for the Arts, Music, Athletics and other extracurricular opportunities
f. Social and emotional development of all students
g. Projected future enrollment

3. The Firm shall incorporate community involvement into the development of the Plan throughout the entire process. The community involvement shall include the School Committee, District staff, Town Leadership, parents, teachers, students, the community at large and other key stakeholders to identify issues, needs, and evaluation of options, proposals and priorities using meetings, focus groups and other forms of communication.

4. The Firm shall review and analyze building capacity and space utilization.

5. The Firm shall identify and evaluate costs and benefits of a broad array of facility options.

6. The Firm shall develop conceptual improvement plans and develop probable cost estimates, cost modeling, and financial planning for each concept.

7. The Firm shall incorporate the District's Strategic Plan (currently in development) and other District- wide initiatives, educational programming, optimal school and classroom size, and current educational standards.

8. The Firm shall complete an on-site facility conditions assessment of the District's schools and identify any deficiencies in the existing buildings and site, including program and service areas, space, utility systems and infrastructure, telecommunications/technology, parking, traffic patterns and grounds, and health and safety conditions.

9. The Firm shall develop, in conjunction with the District and community stakeholders, a 5 Year Capital Improvement Plan through a prioritization of the information contained in the Educational Facilities Master Plan and facility conditions assessment. The Firm shall facilitate collaboration between the Town Council, Town Administrator, Town Departments, the District, community stakeholders and School Committee during the development of this plan.

10. The Firm shall develop a RIDE Necessity of School Construction Stage I application, submit the application to RIDE and work with the District and RIDE to gain final approval for the application to move to Stage II in accordance with all Rhode Island School Building Authority deadlines.

11. All work performed by the Firm must be in conformance with the most current RIDE School Construction Regulations.

Section 4: DELIVERABLES

1. Facilities Conditions Assessment Report as described in this RFP.

2. Educational Facilities Master Plan as described in this RFP.

3. 5 Year Capital Improvement Plan as described in this RFP.

4. The Firm shall develop, document and submit a complete RIDE Stage I Necessity of School Construction application.

Section 5: PROPOSAL

A. Technical Proposal

The proposal should address each of the following elements:

1. Proposing Firm's Capability and Qualifications: Please provide a firm profile that includes size, detailing relevant experience and areas of expertise. Please list three references (client name and address, point of contact, phone number, dates of service and type of service provided).

2. Key Staff Qualifications: Provide staff resumes/CV and describe qualifications and relevant experience of key staff who will be involved in the project.

3. Approach/Methodology: Please describe your firm's approach and methodology for accomplishing the Scope of Work described in this RFP.

4. Work Plan/Schedule: Please describe in detail your firm's plan for completing the work, including a detailed timeline/schedule.

B. Cost Proposal

The District will select a Firm through a qualifications-based selection process for the procurement of architectural and engineering consulting services. Responses will be evaluated on the basis of the relative merits of the proposal and firms will be ranked based on the criteria described in this RFP. The top firm will be selected and enter into fee negotiations with the District. If an agreement cannot be reached between these parties, the District may elect to enter into negotiations with the next highest ranked firm.

The District reserves the right to negotiate with the top firm for additional professional services related to the creation and submission of a RIDE Necessity of School Construction Stage II Submission.

Section 6: QUESTIONS

Questions concerning this RFP must be submitted in writing by emailing them to Thomas Wood at thomas.wood@bwrsd.org no later than April 5, 2022 at 4:00PM EST. Please reference RFP# 5-3-25-22 on all correspondence. Answers to questions received, if any,

shall be posted to the Districts website as an addendum on April 7, 2022. This RFP and any addendums can be found at BWRSD website, Business and Finance Office (Bids), https://www.bwrsd.org/Page/2880.

Section 7:. EVALUATION AND SELECTION

The District will select a firm to provide the services outlined in this RFP using a qualifications-based selection process. Proposals will be reviewed and scored by a technical evaluation committee.

The District reserves the right to select the firm that it deems to be the most qualified to provide the services described in this RFP. The District reserves the right to cancel this solicitation in its entirety at its sole discretion.

Proposals will be reviewed and scored based on the following criteria (Total Possible Points = 100):

1. Firm Capability and Qualifications: 25 Points Maximum
2. Key Staff Qualifications: 25 Points Maximum
3. Approach and Methodology: 35 Points Maximum
4. Work Plan/Schedule: 15 Points Maximum

Firms may be required to submit additional written information or be asked to make an oral presentation to the technical evaluation committee as part of the selection process.

Section 8: REFERENCE DOCUMENTS

1. Rhode Island Department of Education (RIDE) School Construction Regulations: http://www.ride.ri.gov/FundingFinance/SchoolBuildingAuthority/Statutes,RegulationsandGuidance.aspx#37601415-regulations

2. Rhode Island Department of Education (RIDE) Necessity of School Construction: http://www.ride.ri.gov/FundingFinance/SchoolBuildingAuthority/NecessityofSchoolConstruction.aspx

3. Rhode Island Department of Education (RIDE) Facility Data & Information: http://www.ride.ri.gov/FundingFinance/SchoolBuildingAuthority/FacilityDataInformation.aspx

4. Rhode Island Department of Education (RIDE) Basic Education Program: http://www.ride.ri.gov/InformationAccountability/Accountability/BasicEducationProgram.aspx

BID FORM

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission:

The undersigned, having familiarize themselves with all local conditions affecting the cost of work, and having examined the site and all applicable Bidding Documents herein, and herein referenced, including, but not limited to, all addenda issued thereto, hereby propose to furnish all labor, material, equipment, applicable taxes and services required for proper completion of this project.

Please complete the information below as concisely as possible.
If you wish to provide additional information, please attach and reference the location of additional information.

General Information	
Legal Name	
Street Address	
City / State / Zip	
Telephone / Fax	
E-Mail Address	
Primary Contact Name **Contact Information**	
Confirm, by your signature, that your organization agrees to abide by the Submission Requirements.	_____ **Signature** _____ **Title**

Appendix A

INSURANCE EXHIBIT- PROFESSIONAL CONTRACTS

The professional individual or firm shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damage for property which may arise from or in connection with the performance of the contractor's work by the individual firm, his agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the contractor's bid.

For the purpose of this clause: the term "professional individual or firm" and "contractor" shall also include their respective agents, representatives, employees or subcontractors; the term "Bristol Warren Regional School District" or "District" shall include their respective officers, employees, volunteers, boards, and commissions.

Additional forms of insurance may be necessary based upon the specific work performed by the contractor. When additional forms of insurance are required, the minimum amount of such coverages and the terms thereof shall be determined by the District and Superintendent and/or Chief Financial Officer and shall be stated, as well as a description of the types of additional coverage required, in an addendum to this exhibit.

Minimum Insurance Coverage Required

1. Broad form comprehensive general liability, occurrence form.
2. Workers' Compensation: limits as required by the State of Rhode Island.
3. Employer's liability, occurrence form.

Minimum Limits of Insurance

1. Comprehensive general liability: $1,000,000 combined single limits per occurrence for bodily injury, personal injury, property damage, and products/completed operations.
2. Workers' Compensation: limits as required by the State of Rhode Island.
3. Employer's liability: limits of $1,000,000 per occurrence.

Deductibles and Self-Insured Retention

Any deductibles or self-insured retentions must be declared to and approved by the Bristol Warren Regional School District. At the option of the District, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, or the contractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration and defense expenses.

Notice of Cancellation or Non-Renewal

Each insurance policy required by this exhibit shall be endorsed to state that coverage shall not be suspended, voided, canceled, or reduced in coverage or in limits except after thirty {30) days' prior written notice by certified mail, has been given to the District.

Other Insurance Provisions

The policies are to contain, or be endorsed to contain, the following provisions:

1. Comprehensive General Liability Coverage:

a. The District and their respective officers, agents, officials, employee volunteers, Boards and commissions are to be covered as insureds as respects : liability arising out of activities performed by or on behalf of the contractor ; products and completed operations of the contractor; premises owned, leased or used by the contractor . The coverage shall contain no special limitations on the scope of protection afforded to the District.

b. The contractor's insurance coverage shall be the primary insurance with respect to the Bristol Warren Regional School District. Any insurance or self-insurance maintained by the District shall be in excess of the contractor's insurance and shall not contribute with it.

c. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Bristol Warren Regional School District.

d. Coverage shall state that the contractor insurance shall apply separately to each Insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

2. The insurer shall agree to waive all rights of subrogation against the District for losses arising from the work performed by the contractor for the District.

Acceptability of Insurers

1. Insurance is to be placed with insurers with a Best rating of no less than A: VII.

2. Insurance companies must either be licensed to do business in the State of Rhode Island, or otherwise deemed acceptable by the Bristol Warren Regional School District, Superintendent and/or the Chief Financial Officer.

Verification of Coverage

The contractor shall furnish the District with certificates of insurance affecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be received and approved by the District before work commences. Renewal of expiring certificates shall be filed thirty (30) days prior to expiration. The District reserves the right to require complete, certified copies of all required policies, at any time.

Appendix B

State of Rhode Island
Office of Diversity, Equity and Opportunity (ODEO)
Minority Business Enterprise Compliance Office
Minority Business Enterprise Utilization Plan

Company Name:_____

Representative's Name who administers MBE Program: _____

Street Address: _____

City, State, Zip: _____ Telephone: _____

Email: _____ Project Location: _____

Bid or Project #: _____ Date Bid Opened: _____

Description of Work: _____

Contract Value: _____ MBE % Assigned: _____

Total # of All Subcontractors/Suppliers used: ___ # of MBE Subcontractors/Suppliers used: _____

List All Subcontractors/Suppliers/Consultants/Independent Contractors – Total Dollar Amounts – Scope of Work:

Subcontractor / Supplier	Dollar Award	Scope/Description of Work	RI Certified M/WBE Yes/No

Please note that all MBE/WBE firms must be certified by the RI MBE Compliance Office, and that MBE/WBE firms must self-perform 100% of the work with their own forces or subcontract to another RI certified MBE/WBE in order to receive participation credit. Vendors may count 60% of expenditures for materials and supplies obtained from an MBE certified as a regular dealer/supplier, and 100% of such expenditures obtained from an MBE/WBE certified as a manufacturer. For firms certified as a broker, you may receive MBE participation credit only for the fees and commissions charged for the procurement of the goods and materials, but not the cost of the materials themselves.

The above referenced contract will not be released until this plan has been approved by the Director of the Department of Administration or its designee.

For assistance and advice in identifying MBE/WBE firms, please call the Minority Business Enterprise Compliance Office at (401) 574-8670. The directory of all certified MBE firms is also located at www.mbe.ri.gov .

Signature of Authorized Agent of Business: _____ Date: _____

BRISTOL WARREN REGIONAL SCHOOL DISTRICT
235 High Street
Bristol, Rhode Island 02809

Public RFP# 5-3-25-22

Facilities Condition Assessment, Educational Facilities Master Plan, 5 Year Capital Improvement Plan and RIDE Necessity of School Construction Stage I Submission

ADDENDUM No. 1

This Addendum forms a part of the RFP and modifies the RFP as issued on March 25, 2022.

Item 1.01 **General Information**

The RFP as posted using the link was an incorrect version. Please use the link below to access the correct version.

https://docs.google.com/document/d/1Gw5rmSqoKVu4u5IYkc5tuDBHVbDnjWHGSJlN1-Cj-hQ/edit?usp=sharing

Item 1.02 **General Bid Schedule**

The Bid date is being change as noted:

General Bid Schedule

RFP Released	March 25, 2022
Bidder Questions and Clarifications Ends	April 8, 2022 4:00pm
Response to Questions/Issue Addendum	April 11, 2022
Bids Due Back	**April 19, 2022 1:00 pm**
Bid Opening	**April 19, 2022 1:15 pm**
Planned Date to Submit Stage I to RIDE	No later than September 09, 2022

(THIS COMPLETES ADDENDUM No. 1)